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Northeastern Operations

Raritan Center
 160 Fieldcrest Avenue
 Edison, NJ 08837
 201-225-6040
 Fax: 201-225-4577

Clayton
 ENVIRONMENTAL
 CONSULTANTS

December 11, 1990

Mr Taylor Treat
 Project Supervisor
OH MATERIALS CORPORATION
 90 Elm Street
 Hopkinton, Massachusetts 01748

Clayton Project No. 31204.00
 File No. F-19615.

Dear Mr. Treat:

OH Materials Corporation (OHM) retained Clayton Environmental Consultants, Inc. to perform an industrial hygiene assessment limited to area and personal air sampling for total airborne fibers and total airborne asbestos fibers at 257 New Vernon Road in Meyersville, New Jersey.

Messrs. Jeffrey Kaplan and Keyur Patel, Industrial Hygienists of Clayton's Edison, New Jersey, office, conducted the assessment from September 27 through October 31, 1990.

This site was placed on the United States Environmental Protection Agency (USEPA) National Priority List (NPL) in the early 1980's. OHM was retained by the USEPA to alleviate any imminent life-threatening situations. According to the USEPA, this 30-acre property, known as the Millington Site, was used as a satellite dump in the late 1960's for refuse from National Gypsum. At the time of assessment, this 30-acre property included two residential houses (dwellings), three sheds, and a garage.

The purpose of the assessment was to determine total airborne fibers concentrations outdoors, inside dwelling 1, shed 1, and the garage during remediation process. The scope of the services provided by Clayton is described in the confirmation letter, dated September 17, 1990, which includes an explanation of the terms and conditions under which the work was provided. Clayton previously performed an assessment at this property on September 11, 1990. A report of this assessment performed by Mr. Kaplan, was submitted to Mr. Treat, on October 23, 1990.

Activities of OHM personnel from September 27 through October 31, 1990, included paving roads, demolition of shed 1, decontamination of dwelling 1 and the garage, and stabilization of dirt roads leading to the landfill located on the property.

Clayton collected 164 area air samples inside dwelling 1, shed 1, the garage, and outdoors on the property and collected 23 personal air samples during remediation activities. Clayton analyzed these samples in its Edison, New Jersey, laboratory, by phase contrast microscopy (PCM) using National Institute for Occupational Safety and Health (NIOSH) Method 7400, A

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Rules, for the area air samples and Occupational Safety and Health Reference Method (ORM) for personal air samples. These methods measures total airborne fibers and are not specific for asbestos.

Analytical results of area air samples indicated airborne fiber concentrations ranged from less than 0.001 fibers per cubic centimeter of air (f/cc) to 0.017 f/cc. Analytical results of personal air samples indicated airborne fiber concentrations ranged from less than 0.002 f/cc to 0.024 f/cc. Results of area air samples collected outdoors ranged from less than 0.001 f/cc to less than 0.004 f/cc.

At the request of Mr. Mike Neill, Onsite Coordinator (OSC) of the USEPA, Clayton submitted representative air samples collected inside dwelling 1 and the garage to its laboratory, in Kennesaw, Georgia, for transmission electron microscopy (TEM) analysis, NIOSH Method 7402, to determine the airborne asbestos fiber concentration. Analytical results of TEM analysis indicated airborne fiber concentration ranged from less than 0.001 f/cc to 0.0017 f/cc.

Paving Dirt Roads

OHM personnel paved the roads from September 27 through October 1, 1990. Clayton collected area and personal air samples during the road paving. Analytical results of area air samples indicated airborne fiber concentrations ranged from less than 0.001 to 0.002 f/cc. Results of personal air samples indicated airborne fiber concentrations ranged from less than 0.002 f/cc to 0.002 f/cc.

Shed 1 Demolition

From October 2 through October 16, 1990, OHM personnel demolished Shed 1. OHM used a full enclosure around Shed 1 and created a pressure differential for the removal of asbestos containing transite panels from the shed walls. Clayton collected area and personal air samples during demolition of shed 1. Airborne fiber concentrations during abatement enclosure preparation ranged from less than 0.001 f/cc to 0.002 f/cc for area air samples and ranged from less than 0.0033 f/cc to 0.0060 f/cc for personal air samples.

Analytical results of area and personal air samples collected inside shed 1 during asbestos abatement from October 9 through October 12, 1990 indicated airborne fiber concentrations for area air samples ranged from less than 0.002 f/cc to 0/005 f/cc and for personal air samples ranged from 0.0086 f/cc to 0.024 f/cc. At the end of the asbestos abatement, Clayton used aggressive technique to collect air samples inside the enclosure. Results of these air samples indicated the airborne fiber concentration ranged from 0.0014 f/cc to 0.0023 f/cc.

Area and personal air samples were collected during dismantling of enclosure and demolition of shed. Airborne fiber concentrations for (a) area air samples ranged from less than 0.001 f/cc to 0.002 f/cc and (b) personal air sample was 0.0066 f/cc.

Decontamination of Dwelling 1

OHM workers HEPA vacuumed and wet wiped accessible surfaces inside dwelling 1. Analytical results of air samples collected inside dwelling 1 during the decontamination process from October 17 through October 20, 1990, indicated airborne fiber concentrations for (a) area air samples ranged from 0.001 f/cc to 0.017 f/cc and (b) personal air samples ranged from 0.007 f/cc to 0.011 f/cc. Four area and one personal air samples were overloaded with particulate which could not be analyzed by PCM. Representative air samples.

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which indicated elevated airborne fiber concentrations or were overloaded with particulate in PCM analysis were analyzed by TEM. Results of TEM analysis indicated total asbestos fiber concentration ranged from less than 0.00057 f/cc to 0.0017 f/cc.

Decontamination of Garage

OHM workers HEPA vacuumed and wet wiped accessible surfaces and inside the garage. Analytical results of area air samples collected inside the garage before decontamination process on October 19 and 20, 1990, by TEM indicated airborne asbestos fiber concentrations less than 0.00011 f/cc and less than 0.00017 f/cc. Results of area and personal air samples collected on October 22 through October 24, 1990, inside the garage during decontamination process, indicated airborne fiber concentrations for (a) area air samples from 0.002 f/cc to 0.0056 f/cc and (b) a personal air sample was 0.003 f/cc. Two personal air samples were overloaded with particulates and could not be analyzed by PCM. Results of area air samples collected inside the garage after decontamination analyzed by TEM indicated airborne asbestos fiber concentrations less than 0.00053 f/cc.

Miscellaneous Activities

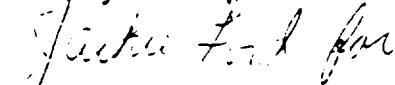
From October 25 through October 31, 1990, OHM personnel were engaged in miscellaneous activities including (a) washing the paved road, (b) encapsulating dirt road leading to landfill, (c) fencing, and (d) taking inventory of materials.

Clayton collected air samples collected during these activities indicated airborne fiber concentrations for (a) area air samples ranged from less than 0.002 f/cc to less than 0.004 f/cc and (b) personal air samples ranged from 0.002 f/cc to 0.0057 f/cc.

Attachment A presents analytical results. Attachment B presents brief summaries of the sampling and analytical methods. Attachment C presents sampling location site maps. Attachment D presents laboratory analytical results.

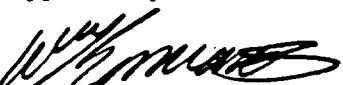
It has been a pleasure to provide our services to OH Materials Corporation. If you have any questions, please call.

Sincerely:



Keyur Patel
Industrial Hygienist

Approved by:



William L. Komianos, CIH, CSP
Manager, Industrial Hygiene Services
Northeastern Operations
December 11, 1990

KP/jf
Attachments

ABD 002 0485

MDE 0003991

Clayton
ENVIRONMENTAL
CONSULTANTS

ATTACHMENT A
ANALYTICAL RESULTS

ABD 002 0486

MDE 0003992

Table 1

**Analytical Results of Air Sampling for Airborne Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation**

Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u>	<u>Air Volume</u> (liters)	<u>Airborne Fiber Concentration</u> (f/cc)
		<u>Start</u>	<u>Stop</u>	
<u>SEPTEMBER 27, 1990</u>				
OHM-0927-90 1	North Driveway, 10 feet East of New Vernon Road, 25 feet North of Driveway	0742	1536	1185 <0.002
OHM-0927-90 2	Front Yard, 10 feet East of New Vernon Road, 25 feet North of South Driveway	0747	1538	1083 0.002
OHM-0927-90 3	Dwelling 1, Northeast Corner, Outside Fenced Yard	0755	1541	1165 0.002
OHM-0927-90 4	East Side of Dwelling 2, 10 feet From Upper Stairwell, 15 feet from North Driveway	0800	1543	1181 0.002
OHM-0927-90 5	Near Garage, 25 feet West of Garage, Patch in Driveway	0810	1545	1138 0.002
OHM-0927-90 6	Near Porta Jons 15 feet From New Vernon Road, 25 feet North of North Driveway	0825	1552	1118 0.002
<u>SEPTEMBER 28, 1990</u>				
OHM-0928-90 2	Near Garage, 25 feet West of Garage, on Dirt Patch in North Driveway	0825	1541	1221 <0.002

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Table 1

**Analytical Results of Air Sampling for Airborne Fibers
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Clayton Project No. 31204.00/F-19615

Sample Number	Sample Description	Sampling Period		Air Volume (liters)	Airborne Fiber Concentration (f/cc)
		Start	Stop		
SEPTEMBER 28, 1990 (continued)					
OHM-0928-90 3	Near Garage, 40 feet Northeast of Garage Side of Driveway	0827	1542	1218	<0.002
OHM-0928-90 4	Near Garage, 45 feet South of Garage, Side of Driveway	0835	1545	1226	<0.002
OHM-0928-90 5	East End of South Driveway, 10 feet North of South Driveway	0840	1547	1217	0.002
OHM-0928-90 6	Northeast Corner, Outside Fenced Area of Dwelling 1	0847	1550	1184	<0.002
OHM-0928-90 7	Near North Driveway, 10ft North, 35 feet East of Dwelling 2	0850	1538	1183	<0.002
OHM-0928-90 8	Dwelling 1, South Side Near Entrance to Basement	1010	1551	989	<0.002
OCTOBER 1, 1990					
OHM-1001-90 2	South Driveway (West Side), 10 feet East of New Vernon Road, 10 feet South of South Driveway	0750	1400	1073	<0.002
OHM-1001-90 3	Dwelling 1, South Side, Near Entrance to Basement	0755	1500	1190	<0.002

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Table 1

Analytical Results of Air Sampling for Airborne Fibers
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Meyersville, New Jersey
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Clayton Project No. 31204.00/F-19615

Sample Number	Sample Description	Sampling Period Start Stop	Air Volume (liters)	Airborne Fiber Concentration (f/cc)
OCTOBER 1, 1990 (continued)				
OHM-1001-90 4	South of South Driveway, 10 feet West of Shed	0759 1500	1158	0.002
OHM-1001-90 5	East Side of Dwelling 1, 10 feet East of Fence 10 feet North of South Driveway	0803 1612	1394	<0.001
OHM-1001-90 6	East Side of Dwelling 2, 30 feet East of Dwelling 2, 15 feet South of North Driveway			*
OHM-1001-90 7	Near Garage, 25 feet West of Garage, on Dirt Patch in Driveway	0815 1615	1320	0.002
OHM-1001-90 8	North Driveway (West Side), 10 feet East of New Vernon Road, 15 feet South of North Driveway	0819 1617	1386	<0.001
OCTOBER 2, 1990				
OHM-1002-90 2	Near North Driveway, 10 feet East From New Vernon Road, 8 feet South From North Driveway	0801 1612	1424	<0.001

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Table 1

Analytical Results of Air Sampling for Airborne Fibers
at
257 New Vernon Road
Meyersville, New Jersey
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Clayton Project No. 31204.00/F-19615

Sample Number	Sample Description	Sampling Period		Air Volume (liters)	Airborne Fiber Concentration (f/cc)
		Start	Stop		
<u>OCTOBER 2, 1990 (continued)</u>					
OHM-1002-90 3	Near Dwelling 2, 15 feet South From North Driveway, 35 feet East From Northwest of Dwelling 2	0758	1614	1364	<0.001
OHM-1002-90 4	Near Garage, 45 feet West of Garage, 30 feet Southeast of North Shed	0753	1616	1383	<0.001
OHM-1002-90 5	Near Dwelling 1, South Entrance to Back Yard, 4 feet Southwest of Entrance	0740	1605	1414	0.002
OHM-1002-90 6	Near Northside Shed, 20 feet South of Shed, 15 feet From East End of Shed	0743	1602	1397	<0.001
OHM-1002-90 7	Near Northside Shed, 15 feet Northwest of Shed	0741	1559	1245	<0.002
<u>OCTOBER 3, 1990</u>					
OHM-1003-90 2	South Driveway (West End), 15 feet East of New Vernon Rd. 15 feet South of South Driveway	0759	1531	1130	0.002
OHM-1003-90 3	New Dwelling 1, South Side, Near Entrance to Basement	0817	1615	1338	<0.001

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Table 1

**Analytical Results of Air Sampling for Airborne Fibers
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Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u> <u>Start Stop</u>	<u>Air Volume</u> (liters)	<u>Airborne Fiber Concentration</u> (f/cc)
<u>OCTOBER 3, 1990 (continued)</u>				
OHM-1003-90 4	Near Center of Driveway, 15 feet North Shed	0820 1620	1200	0.002
OHM-1003-90 5	Near South Shed, 20 feet South of Shed	0825 1616	1366	<0.001
OHM-1003-90 6	Southend of Cross Road, Between North and South Driveway, 15 feet East of Road	0835 1537	1195	<0.002
OHM-1003-90 7	South Driveway (West End), 15 feet East of New Vernon Road, 10 feet South of North Driveway	0845 1522	1072	<0.002
OHM-1003-90 8	East Side of Dwelling 2, 25 feet East of House, 15ft South of North Driveway	0850 1525	1067	<0.002
<u>OCTOBER 4, 1990</u>				
OHM-1004-90 2	North Driveway (West End), 15 feet East of New Vernon Road, 15 feet South of North Driveway	0745 1557	1230	<0.002
OHM-1004-90 3	South Driveway, 15 feet Northeast of Shed			*

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Table 1

Analytical Results of Air Sampling for Airborne Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation

Clayton Project No. 31204.00/F-19615

Sample Number	Sample Description	Sampling Period Start Stop	Air Volume (liters)	Airborne Fiber Concentration (f/cc)
OCTOBER 4, 1990 (continued)				
OHM-1004-90 4	New South Shed, 20 feet Southwest of Shed	0804 1555	1295	0.002
OHM-1004-90 5	Near Dwelling 1, 5 feet East of Fence Yard	0810 1603	1183	<0.002
OHM-1004-90 6	Near Dwelling 1, Southside Near Entrance to basement	0815 1600	1279	<0.002
OHM-1004-90 7	South Driveway, 5 feet from Southside Driveway, 25 feet Northwest of Shed	0820 1542	1282	0.002
OHM-1004-90 8	South Driveway, 15 feet North of South Driveway, 10 feet East of New Vernon Road	0835 1540	1211	0.002
OCTOBER 5, 1990				
OHM-1005-90 2	Near Dwelling 1, 4 feet South of South Entrance to Backyard	0749 1552	1304	<0.002
OHM-1005-90 3	Near South Shed, 30 feet West of Shed, 10 feet West of Material Decontamination Unit	0753 1555	1350	0.001

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Table 1

Analytical Results of Air Sampling for Airborne Fibers
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257 New Vernon Road
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Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u> <u>Start Stop</u>	<u>Air Volume</u> (liters)	<u>Airborne Fiber Concentration</u> (f/cc)
OCTOBER 5, 1990 (continued)				
OHM-1005-90 5	Near South Shed, 25 feet South of Shed, 12 feet South of Material Decontamination Unit	0757 1558	1203	<0.002
OHM-1005-90 6	Near South Shed 35 feet Northeast of Shed 10 feet Northeast of Personal Decontamination Unit	0800 1602	1205	0.002
OHM-1005-90 7	Near South Driveway, 15 feet East of New Vernon Road, 2 feet North of Driveway	0806 1550	1160	<0.002
OHM-1005-90 8	Near Garage, (Northeast) 50 feet East of Garage, 35 feet South of North Shed	0813 1604	1178	<0.002
OCTOBER 8, 1990				
OHM-1008-90 2	Near Dwelling 1, (South Side), 2 feet South of Entrance to Backyard	0803 1607	1355	<0.001
OHM-1008-90 3	Near South Shed, 30 feet West of Shed, 10 feet West of Material Decontamination Unit	0807 1609	1350	0.001

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Table 1

**Analytical Results of Air Sampling for Airborne Fibers
at
257 New Vernon Road
Meyersville, New Jersey
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Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u> <u>Start Stop</u>	<u>Air Volume</u> (liters)	<u>Airborne Fiber Concentration</u> (f/cc)
<u>OCTOBER 8, 1990 (continued)</u>				
OHM-1008-90 4	Near South Shed, 25 feet South of Shed, 12 feet South of Material Decontamination Unit	0809 1612	1208	<0.002
OHM-1008-90 5	Near South Shed, 35 feet Northeast of Shed, 10 feet Northeast of Personal Decon Unit	0811 1615	1210	<0.002
OHM-1008-90 6	Near South Driveway, 15 feet East of New Vernon Road, 2 feet North of Driveway	0750 1602	1230	0.002
OHM-1008-90 7	Near Garage, 50 feet West of Garage, 35 feet South of North Shed	0814 1618	1210	<0.002
<u>OCTOBER 9, 1990</u>				
OHM-1009-90 2	25 feet West of Garage, on Dirt Spot in Driveway (Next to Office Trailer)	0740 1635	1284	<0.002
OHM-1009-90 3	Dwelling 1, 8 feet East of Entrance to Fence in Yard (On Edge of Driveway)	0745 1525	1150	<0.002

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Table 1

**Analytical Results of Air Sampling for Airborne Fibers
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257 New Vernon Road
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Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u>	<u>Air Volume (liters)</u>	<u>Airborne Fiber Concentration (f/cc)</u>
<u>OCTOBER 9, 1990 (continued)</u>				
OHM-1009-90 4	25 feet Southwest of Shed (Containment)	0802 1611	1296	<0.002
OHM-1009-90 5	10 feet South of Southeast Corner of Shed (Containment)	0806 1614	1196	0.002
OHM-1009-90 6	10 feet North of Northeast Corner of Shed (Containment)	0811 1631	1250	<0.002
OHM-1009-90 7	South Driveway, West End, 15 feet East of New Vernon Road, 10 feet South of South Driveway	0815 1605	1175	0.002
OHM-1009-90 8	Inside Clean Room of Personal Decontamination Unit of Containment (Shed)	1230 1622	580	<0.003
OHM-1009-90 9	Inside Containment (Shed), South Center	1300 1630	546	0.006
<u>OCTOBER 10, 1990</u>				
OHM-1010-90 2	Inside Clean Room of Containment (Shed) Removal	0755 1617	1305	0.002
OHM-1010-90 3	Inside Containment, South Center, Removal	0800 1620	1375	0.005

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Table 1

**Analytical Results of Air Sampling for Airborne Fibers
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Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u>		<u>Air Volume (liters)</u>	<u>Airborne Fiber Concentration (f/cc)</u>
		<u>Start</u>	<u>Stop</u>		
<u>OCTOBER 10, 1990 (continued)</u>					
OHM-1010-90 4	15 feet South of Southeast Corner of Containment, Removal	0802	1623	1253	<0.002
OHM-1010-90 5	15 feet Southwest of Containment, Removal	0806	1621	1262	<0.002
OHM-1010-90 6	15 feet North of Northeast Corner of Containment, Removal	0810	1610	1193	<0.002
OHM-1010-90 7	8 feet East of Entrance to Fenced Yard on Dwelling 1, Removal	0813	1615	1188	<0.002
OHM-1010-90 8	South Driveway, West, 0816 10 feet East of New Vernon Road, 10 feet South of Driveway	1605		1243	<0.002
OHM-1010-90 9	25 feet East of South Garage, on Dirt Patch in North Driveway (Near Office Trailer)	0822	1628	1215	<0.002
<u>OCTOBER 11, 1990</u>					
OHM-1011-90 2	Personal Decontamin- ation Unit, - Inside Clean Room, Removal	0751	1555	1307	0.002
OHM-1011-90 3	Inside Enclosure, North Center, Removal	0755	1552	1336	0.0048

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Table 1

**Analytical Results of Air Sampling for Airborne Fibers
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Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u>		<u>Air Volume (liters)</u>	<u>Airborne Fiber Concentration (f/cc)</u>
		<u>Start</u>	<u>Stop</u>		
<u>OCTOBER 11, 1990 (continued)</u>					
OHM-1011-90 4	West Side of Containment Shed, 10 feet Southwest of Material Decontamination Unit, Removal	0757	1537	1150	0.002
OHM-1011-90 5	South of Enclosure (Shed), 10 feet Southwest of Material Decontamination Unit, Removal	0759	1540	1153	<0.002
OHM-1011-90 6	10 feet Northeast of Enclosure (Shed) Removal	0802	1542	1150	<0.002
OHM-1011-90 7	Near Dwelling 1, South End - Near Entrance to Basement	0805	1545	1150	<0.002
OHM-1011-90 8	South Driveway, West End, 15 feet From New Vernon Road	0810	1548	1145	<0.002
OHM-1011-90 9	25 feet West of Garage (Near Office Trailers)	0815	1558	1295	<0.002
<u>OCTOBER 12, 1990</u>					
OHM-1012-90 1	25 feet East of Garage (Near Office Trailers)	0750	1645	1338	<0.001
OHM-1012-90 2	Dwelling 1, South Side, Near Entrance to Basement	0753	1633	1508	<0.001

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Table 1

Analytical Results of Air Sampling for Airborne Fibers
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Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u> <u>Start Stop</u>	<u>Air Volume</u> (liters)	<u>Airborne Fiber Concentration</u> (f/cc)
OCTOBER 12, 1990 (continued)				
OHM-1012-90 3	15 feet North of Northwest Corner of Containment (Shed), Encapsulation	0758 1217	648	<0.003
OHM-1012-90 4	Inside Clean Room of Personal Decontamination Unit of Containment, Encapsulation	0800 1627	1217	<0.002
OHM-1012-90 5	15 feet South of Southeast Corner of Containment (Shed), Encapsulation	0804 1629	1414	<0.001
OHM-1012-90 6	15 feet Southwest of Containment (Shed), Encapsulation	0810 1631	1403	<0.001
OHM-1012-90 7	South Driveway, West End, 10 feet West of New Vernon Road, 10 feet South of Driveway	0815 1220	588	<0.003
CLEARANCE SAMPLES				
OHM-1012-90 10	Inside Enclosure, Southeast	1350 1613	1745	0.002
OHM-1012-90 11	Inside Enclosure, Northeast Side	1351 1617	1533	0.0014

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Table 1

**Analytical Results of Air Sampling for Airborne Fibers
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Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u>	<u>Air Volume (liters)</u>	<u>Airborne Fiber Concentration (f/cc)</u>
<u>Start</u>	<u>Stop</u>			
<u>OCTOBER 12, 1990 (continued)</u>				
<u>CLEARANCE SAMPLES</u>				
OHM-1012-90 12	Inside Enclosure, Northwest Side	1351 1615	1879	0.0016
OHM-1012-90 13	Inside Enclosure, Southwest Side	1352 1616	1685	0.0023
<u>OCTOBER 15, 1990</u>				
OHM-1015-90 2	25 feet West of Garage (Near Office Trailers)	0813 1713	1350	0.001
OHM-1015-90 3	40 feet Northeast of Containment - Dismantling of Shed	0840 1710	1326	0.002
OHM-1015-90 4	Dwelling 1, South Side, Near Entrance to Basement	0842 1705	1459	0.001
OHM-1015-90 5	40 feet South of Southeast Corner of Containment, Dismantling of Shed	0845 1700	1213	<0.002
OHM-1015-90 6	45 feet South of Southwest Corner of Containment, Dismantling of Shed	0850 1702	935	<0.002
OHM-1015-90 7	South Driveway, West End, 10 feet East of New Vernon Road, 5 feet North Driveway	0854 1704	1225	<0.002
				ABD 002 0499

Table 1

Analytical Results of Air Sampling for Airborne Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation

Clayton Project No. 31204.00/F-19615

Sample Number	Sample Description	Sampling Period Start Stop	Air Volume (liters)	Airborne Fiber Concentration (f/cc)
OCTOBER 15, 1990 (continued)				
OHM-1015-90 8	60 feet North of Containment, Next to East Side of Fence of Dwelling 1	0900 1707	1218	<0.002
OCTOBER 16, 1990				
OHM-1016-90 2	25 feet West of Garage, 0715 Near Office Trailers	1750	1619	<0.001
OHM-1016-90 3	In Landfill, Tile Being Dumped, 10 feet East of Shed	0723 1745	1586	<0.001
OHM-1016-90 4	Dwelling 1, South Side, Near Entrance to Basement	0730 1731	1382	<0.001
OHM-1016-90 5	South Driveway - West End, 10 feet West of New Vernon Road	0735 1730	1488	<0.001
OHM-1016-90 6	50 feet South of Shed Dismantling of Shed	0745 1732	1468	<0.001
OHM-1016-90 7	45 feet North of Shed 15 feet East of Fence Yard, Dismantling of Shed	0755 1737	1484	<0.001
OHM-1016-90 8	South Driveway, East End, 10 feet South of Pathway to Landfill	0800 1740	1421	<0.001

ABD 002 0500

Table 1

Analytical Results of Air Sampling for Airborne Fibers
 at
 257 New Vernon Road
 Meyersville, New Jersey
 for
 OH Materials Corporation

Clayton Project No. 31204.00/F-19615

Sample Number	Sample Description	Sampling Period Start Stop	Air Volume (liters)	Airborne Fiber Concentration (f/cc)
<u>OCTOBER 17, 1990</u>				
OHM-1017-90 2	Inside Dwelling 1, 2nd Floor, Little Boy's Room, Northwest Room	0922 1542	950	0.012
OHM-1017-90 3	Inside Dwelling 1, 2nd Floor, Baby's Room, Northeast Room	0922 1544	955	0.0087
OHM-1017-90 4	Inside Dwelling 1, 2nd Floor, Hallway Outside Bedroom, South Room	0824 1545	853	0.012
OHM-1017-90 5	Inside Dwelling 1, 1st Floor, Living Room, South Room	0926 1546	950	0.0077
OHM-1017-90 6	Near Dwelling 1, South Side, Near Basement Entrance	0830 1548	1095	<0.002
OHM-1017-90 7	Near Command Post 50 feet West of Garage	0807 1552	1163	<0.002
<u>OCTOBER 18, 1990</u>				
OHM-1018-90 2	25 feet West of Garage, 0730 Near Office Trailer (Command Post)	1705	1438	<0.001
OHM-1018-90 3	Dwelling 1, Outside, South Side Near Entrance to Basement	0735 1655	1400	<0.001
				ABD 002 0501

Table 1

Analytical Results of Air Sampling for Airborne Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation

Clayton Project No. 31204.00/F-19615

Sample Number	Sample Description	Sampling Period Start Stop	Air Volume (liters)	Airborne Fiber Concentration (f/cc)	
OCTOBER 18, 1990 (continued)					
OHM-1018-90 4	Inside Dwelling 1, 1st Floor, Kitchen Decontamination	0745 1645	1296	0.011	
OHM-1018-90 5	Inside Dwelling 1, 1st Floor, North Side of Living Room, Decontamination	0748 1647	1374	0.0086	
OHM-1018-90 6	Inside Dwelling 1, 2nd Floor, Top of Stairs, Decontamination of 1st Floor	0752 1649	1369	0.0057	
OHM-1018-90 7	Inside Dwelling 1, Basement, Base of Stairs, Decontamination of 1st Floor	0758 1642	1336	0.002	
OCTOBER 19, 1990					
OHM-1019-90 2	Near Command Post, 40 feet West of Garage	0733 1629	1340	<0.001	
OHM-1019-90 3	Near Dwelling 1, Near Entrance to Basement	0738 1610	1280	0.002	
OHM-1019-90 4	Inside Dwelling 1, Mr. Teilmann's House, Basement, Center	0737 1621	1284	**	ABD 002 0502

Table 1

**Analytical Results of Air Sampling for Airborne Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation**

Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u>	<u>Air Volume</u> (liters)	<u>Airborne Fiber Concentration</u> (f/cc)
<u>Start</u>	<u>Stop</u>			
OCTOBER 19, 1990 (continued)				
OHM-1019-90 5	Inside Dwelling 1, Miss Kehoe's House 1st Floor, Living Room	0745 1615	1275	0.017
OHM-1019-90 6	Inside Dwelling 1, Miss Kehoe's House, 2nd Floor	0747 1617	1275	0.013
OCTOBER 20, 1990				
OHM-1020-90 2	Dwelling 1, Outside South, Near Entrance to Basement	0802 1115	483	<0.004
OHM-1020-90 3	Dwelling 1, Inside Basement, South Decontamination	0814 1116	473	**
OHM-1020-90 4	Dwelling 1, Inside Basement, North Decontamination	0815 1116	453	**
OCTOBER 22, 1990				
OHM-1022-90 2	Garage, 2nd Floor Decontamination of Floor Wet Wipe and HEPA Vacuuming	0840 1545	1084	0.003
OHM-1022-90 3	Garage, 1st Floor, Decontamination of 2nd Floor	0845 1543	1066	0.0041
OHM-1022-90 4	25 feet West of Garage (Near Office Trailer), Command Post	0850 1540	1046	<0.002
				ABD 002 0503

Table 1

Analytical Results of Air Sampling for Airborne Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation

Clayton Project No. 31204.00/F-19615

Sample Number	Sample Description	Sampling Period		Air Volume (liters)	Airborne Fiber Concentration (f/cc)
		Start	Stop		
OCTOBER 22, 1990 (continued)					
OHM-1022-90 5	Dwelling 1, South, 10 feet East of Entrance to Fenced Yard (Near Driveway)	0855	1517	955	<0.002
OHM-1022-90 6	South Driveway, West, 0858 10 feet West of New Vernon Road, 5 feet North of Driveway	1520		955	<0.002
OHM-1022-90 7	25 feet South of South Driveway (Where Shed 1 was Located), Center	0903	1522	948	<0.002
OCTOBER 23, 1990					
OHM-1023-90 2	Garage, 2nd Level, Center of Room	0732	1512	1150	0.003
OHM-1023-90 1	Garage, 1st Level, Center of Room	0735	1513	1145	0.002**
OCTOBER 24, 1990					
OHM-1024-90 2	Garage, 1st Floor, Center, Decontamination of Floor	0745	1515	1080	0.0054
OHM-1024-90 3	Garage, 2nd Floor, Center Decontamination of 1st Floor	0746	1518	1130	0.0056
OHM-1024-90 4	20 feet Southwest of Garage, Near Command Post (Office Trailer)	0752	1548	1119	<0.002
					ABD 002 0504

Table 1

Analytical Results of Air Sampling for Airborne Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation

Clayton Project No. 31204.00/F-19615

Sample Number	Sample Description	Sampling Period Start Stop	Air Volume (liters)	Airborne Fiber Concentration (f/cc)
OCTOBER 24, 1990 (continued)				
OHM-1024-90 5	Dwelling 1, Southeast Corner of Porch	0806 1537	1082	<0.002
OHM-1024-90 6	South Driveway, West, 0810 3 feet North of Driveway, 10 feet East of New Vernon Road	1541	1173	<0.002
OHM-1024-90 7	25 feet South of South Driveway (Where Shed 1 Was Located) Center	0817 1545	1075	<0.002
OHM-1024-90 8	Dwelling 1, Basement Following Decontamination Center	1052 1355	2031	0.0036
OHM-1024-90 9	Garage 1st Floor Center, Following Decontamination	1516 1731	1519	0.0063
OHM-1024-90 10	Garage 2nd Floor, Center, Following Decontamination	1520 1733	1503	0.0039
OCTOBER 25, 1990				
OHM-1025-90 2	20 feet Southwest of Garage, Near Command Post (Office Trailer)	0755 1535	1173	<0.002
OHM-1025-90 3	40 feet East of Garage, 0802 Filling Bags With Sand	1540	1122	<0.002
				ABD 002 0505

Table 1

**Analytical Results of Air Sampling for Airborne Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation**

Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u>		<u>Air Volume (liters)</u>	<u>Airborne Fiber Concentration (f/cc)</u>
		<u>Start</u>	<u>Stop</u>		
<u>OCTOBER 25, 1990 (continued)</u>					
OHM-1025-90 4	Dwelling 1-Southeast, 0810 1525 10 feet Southeast of House in Fenced Yard			1022	<0.002
OHM-1025-90 5	South Driveway, West 0815 1527 End, 3 feet North of Driveway, 10ft East of New Vernon Road			1080	<0.002
OHM-1025-90 6	North Driveway, West 0822 1530 End, 5 feet South of Driveway, 10 feet East of New Vernon Road			1091	<0.002
<u>OCTOBER 26, 1990</u>					
OHM-1026-90 1	Near Command Post, 0745 1135 20 feet Southwest of Garage			552	<0.003
OHM-1026-90 2	Dwelling 1, Southeast, 0755 1130 Corner of Fence			548	<0.004
OHM-1026-90 3	South Driveway, East 0802 1132 End, 10 feet South of Driveway, Putting Fence Leading in Landfill			557	<0.003
<u>OCTOBER 29, 1990</u>					
OHM-1029-90 2	Near Command Post, 0805 1513 50 feet West of Garage			1070	<0.002

ABD 002 0506

Table 1

**Analytical Results of Air Sampling for Airborne Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation**

Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u>		<u>Air Volume (liters)</u>	<u>Airborne Fiber Concentration (f/cc)</u>
		<u>Start</u>	<u>Stop</u>		
<u>OCTOBER 29, 1990 (continued)</u>					
OHM-1029-90 3	Near North Dirt Road, 0810 1459 Leading to Landfill			1207	<0.002
OHM-1029-90 4	Near South Dirt Road 0813 1503 Leading to Landfill, 150 feet From Paved Crossroad			1025	<0.002
OHM-1029-90 5	Near South Dirt Road 0816 1506 Leading to Landfill 30ft From Paved Cross Road			1025	<0.002
OHM-1029-90 6	Near Dwelling 1, Near Basement and Backyard Entrance	0820	1509	1023	<0.002
<u>OCTOBER 30, 1990</u>					
OHM-1030-90 2	Near Command Post, 40 feet West of Garage	0850	1508	1002	<0.002
OHM-1030-90 3	Near North Dirt Road 0853 1512 Leading to Landfill			966	<0.002
OHM-1030-90 4	Near South Dirt Road 0855 1515 Leading to Landfill, 150 feet From Paved Cross Road			950	<0.002
OHM-1030-90 5	Near South Dirt Road 0858 1518 Leading to Landfill, 30 feet From Paved Crossroad			950	0.002

ABD 002 0507

Table 1
Analytical Results of Air Sampling for Airborne Fibers
 at
 257 New Vernon Road
 Meyersville, New Jersey
 for
OH Materials Corporation

Clayton Project No. 31204.00.F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u>		<u>Air Volume (liters)</u>	<u>Airborne Fiber Concentration (f/cc)</u>
		<u>Start</u>	<u>Stop</u>		
<u>OCTOBER 30, 1990</u>					
OHM-1030-90 6	Near Dwelling 1, Near Entrance to Basement and Backyard	0901	1520	948	<0.002
<u>OCTOBER 31, 1990w</u>					
OHM-1031-90 1	Corner Where South Driveway and New Vernon Road Meet	0847	1502	938	<0.002
OHM-1031-90 2	Approximately 50 feet Southwest of Shed 1, Approximately 30 feet from New Vernon Road	0851	1504	933	<0.002
OHM-1031-90 3	South Corner of Property Line, Approximately 5 feet From New Vernon Road	0854	1507	933	<0.002
OHM-1031-90 4	Corner Where North Driveway and New Vernon Road Meet	0859	1510	928	<0.002
OHM-1031-90 5	Northeast Corner of Residence, Outside Fence	0902	1515	933	<0.002
OHM-1031-90 6	Approximately 10 feet Northeast, Corner of Shed 2, at East End of North Driveway	0828	1450	955	<0.002

ABD
002 0508

Table 1

**Analytical Results of Air Sampling for Airborne Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation**

Clayton Project No. 31204.00/F-19615

Sample Number	Sample Description	Sampling Period		Air Volume (liters)	Airborne Fiber Concentration (f/cc)
		Start	Stop		
<u>OCTOBER 31, 1990 (continued)</u>					
OHM-1031-90 7	Approximately 5 feet Southeast of Shed 3, Approximately 20 feet Northeast of Garage	0834	1453	948	<0.002
OHM-1031-90 8	South Trail, Directly South of Garage	0838	1455	943	<0.002
OHM-1031-90 9	East End of South Driveway, Edge of Trail Leading to North Driveway	0841	1457	940	<0.002
OHM-1031-90 10	South Side of Residence at Entrance to Basement	0844	1500	940	<0.002

f/cc means fibers per cubic centimeter of air.

"<" means less than.

* means sample was voided.

** means sample was overloaded with particulate.

Analytical Method: NIOSH 7400, A Rules

Limit of Detection: 2,000 fibers per filter

ABD 002 0509

Table 2

Analytical Results of Personal Air Sampling for Airborne Asbestos Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation

Clayton Project No. 31204/F-19615**September 28 through October 30, 1990**

<u>Sample Number</u>	<u>Employee Information</u>	<u>Sampling Period</u>		<u>Air Volume (liters)</u>	<u>Airborne Fiber Concentration (f/cc)</u>
		<u>Start</u>	<u>Stop</u>		
OHM-0927-90	Ron Ross S.S.149-64-2900 Bulldozer Operator	1000	1548	696	0.002
OHM-0928-90 1A	1 Ron Ross S.S.149-64-2900 Bulldozer Operator	0820	1535	1088	<0.002
OHM-1001-90 1A	Ron Ross S.S.149-64-2900 Bulldozer Operator	0742	1604	1255	<0.002
OHM-1002-90 1	Pete Vorona S.S.152-74-4216 Preparation of Enclosure	0748	1555	1315	0.0033
OHM-1003-90 1A	Mark Thomas S.S.218-68-5557 Preparation of Containment	0750	1552	1205	0.0060
OHM-1004-90 1A	Mark Paige S.S.274-68-8397 Preparation of Containment	0750	1552	1205	0.0045
OHM-1004-90 9A	Pete Vorona S.S.152-74-4216 Wetting and Digging Material	0905	1550	1013	0.0039
OHM-1005-90 1	Griffen Huy S.S.140-43-3144 Preparation of Containment	0743	1607	1260	0.002

ABD 002 0510

Table 2

**Analytical Results of Personal Air Sampling for Airborne Asbestos Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation**

Clayton Project No. 31204/F-19615

Sample Number	Sample Description	Sampling Period		Air Volume (liters)	Airborne Fiber Concentration (f/cc)
		Start	Stop		
OHM-1008-90 1	Mark Thomas S.S.218-68-5557 Preparation of Containment				*
OHM-1008-90 8	Miguel Rivera S.S.584-57-3058	1148	1621	792	0.004
OHM-1009-90 1A	Pete Vorona S.S.152-74-4216 Preparation Work and Removal	0755			**
OHM-1009-90 10A	Mark Thomas S.S.218-68-5557	1250	1610	370	0.024
OHM-1010-90 1A	Mark Thomas S.S.218-68-5557 Removal	0750	1615	960	0.0086
OHM-1011-90 1	Griffn Heuy S.S.#140-46-3144	0747			**
OHM-1011-90 10A	Griffin Heuy S.S. 140-74-4216 Inside Enclosure, Removal	1317	1550	428	0.0086
OHM-1015-90 1A	Pete Vorona S.S.152-74-4216 Dismantle of Shed	0835			**
OHM-1016-90 1A	Ron Ross S.S.149-64-2900 Operator of Crane	0740	1735	1488	0.0066

ABD 002 0511

Table 2

**Analytical Results of Personal Air Sampling for Airborne Asbestos Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation**

Clayton Project No. 31204/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u>		<u>Air Volume (liters)</u>	<u>Airborne Fiber Concentration (f/cc)</u>
		<u>Start</u>	<u>Stop</u>		
OHM-1017-90	Pete Vorona S.S.152-74-4216 HEPA Vacuuming and Wet Wiping	0845	1538	1136	0.013
OHM-1018-90 1A	Miguel Rivera S.S.584-57-3058 Decontamination of House	0750	1658	1370	0.0070
OHM-1019-90 1	Pete Vorona S.S.152-74-4210 HEPA Vacuuming and Wet Wiping Inside Tammie's House	0743	1528	1163	0.0074
OHM-1020-90 5	Bob Coker S.S.257-66-5918 Decon of Basement of Dwelling 1	0805	1113	470	***
OHM-1022-90 1A	Mighuel Rivera S.S.584-57-3058 Decontamination of 2nd Floor of Garage	0830	1535	1041	***
OHM-1023-90 3	Robert Coker S.S.257-66-5918 During HEPA Vacuuming and Wet Wiping	0728	1510	1155	0.0033
OHM-1024-90 1A	Robert Croker S.S.257-66-5918 Decontamination of 1st Floor of Garbage	0740	1525	1070	0.003
OHM-1025-90	Pete Vorona	0750	1533	1158	0.002

ABD 002 0512

Table 2

**Analytical Results of Personal Air Sampling for Airborne Asbestos Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation**

Clayton Project No. 31204/F-19615

<u>Sample Number</u>	<u>Sample Description</u>	<u>Sampling Period</u>	<u>Air Volume</u> (liters)	<u>Airborne Fiber Concentration</u> (f/cc)
		Start Stop		
OHM-1029-90 1	Griffin Huey S.S.140-46-3144	0751 1455	1060	0.0057
OHM-1030-90 1	Miguel Rivera S.S.584-57-3058	0845 1511	1004	0.0051

f/cc means fibers per cubic centimeter.

* means sample voided.

** means sample voided due to moisture.

*** means sample overloaded with particulate.

1 The fifth and sixth letters of sample numbers indicate the month, the seventh and the eight letters indicate the day of the month, and the tenth and eleventh letters indicate the year of sample collection.

Analytical Method: OSHA Reference Method

Limit of Detection: 2,000 fibers per filter

ABD 002 0513

Table 3

**Analytical Results of Air Sampling for Airborne Asbestos Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation**

Clayton Project No. 31204.00/F-19615

<u>Sample Number</u>	<u>Sample Location</u>	<u>Sampling Period</u> <u>Start Stop</u>	<u>Air Volume</u> (liters)	<u>Airborne Fiber Concentration</u> (f/cc)
<u>BEFORE DECONTAMINATION PROCESS (BACKGROUND)</u>				
<u>OCTOBER 19, 1990</u>				
OHM-1019-90 8	Inside Garage, 2nd Floor (Center)	1645 0725	6732	<0.00017
<u>OCTOBER 20, 1990</u>				
OHM-1020-90 1	Inside Garage, 1st Floor, Southwest	0728 1600	6118	<0.00011
<u>DURING DECONTAMINATION PROCESS</u>				
<u>OCTOBER 17, 1990</u>				
OHM-1017-90 2	Inside Dwelling 1, 2nd Floor, Little Boy's Room, Northwest Room	0922 1542	950	<0.00078
OHM-1017-90 3	Inside Dwelling 1, 2nd Floor, Baby's Room, Northeast Room	0922 1544	955	<0.00078
OHM-1017-90 4	Inside Dwelling 1, 2nd Floor, Hallway Outside Master Bedroom, South Room	0924 1545	953	<0.00078
OHM-1017-90 5	Inside Dwelling 1, 1st Floor, Living Room South Room	0926 1546	950	<0.00078
<u>PERSONAL SAMPLE</u>				
OHM-1017-90 1	Pete Vorona S.S.No.152-74-4216	0845 1538	1136	<0.00065

ABD 002 0514

Table 3

**Analytical Results of Air Sampling for Airborne Asbestos Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation**

Clayton Project No. 31204.00/F-19615

Sample Number	Sample Location	Sampling Period		Air Volume (liters)	Airborne Fiber Concentration (f/cc)			
		Start	Stop					
<u>DURING DECONTAMINATION PROCESS</u>								
<u>OCTOBER 18, 1990</u>								
OHM-1018-90 4	Inside Dwelling 1, 1st Floor, Kitchen	0745	1645	1296	<0.00057			
<u>OCTOBER 19, 1990</u>								
OHM-1019-90 5	Inside Dwelling 1, Miss Kehoe's House, 1st Floor, Living Room	0745	1615	1275	<0.00063			
OHM-1019-90 6	Inside Dwelling 1, Miss Kehoe's House, 2nd Floor	0747	1617	1275	<0.00063			
<u>OCTOBER 20, 1990</u>								
OHM-1020-90 3	Dwelling 1, Inside Basement, South	0814	1116	473	0.0017			
<u>PERSONAL SAMPLE</u>								
PHM-1020-90 5	Robert Coker S.S.No. 257-66-5918	0805	1113	470	<0.0017			
<u>AFTER DECONTAMINATION PROCESS (CLEARANCE PASSIVE)</u>								
<u>OCTOBER 24, 1990</u>								
OHM-1024-90 8	Inside Dwelling 1, Basement, Center	1052	1355	2031	<0.00039			
OHM-1024-90 9	Garage, 1st Floor, Center	1516	1731	1519	<0.00053			

ABD 002 05 15

Table 3

Analytical Results of Air Sampling for Airborne Asbestos Fibers
at
257 New Vernon Road
Meyersville, New Jersey
for
OH Materials Corporation

Clayton Project No. 31204.00/F-19615

Sample Number	Sample Location	Sampling Period		Air Volume (liters)	Airborne Fiber Concentration (f/cc)			
		Start	Stop					
<u>AFTER DECONTAMINATION PROCESS (CLEARANCE, PASSIVE)</u>								
<u>OCTOBER 24, 1990 (continued)</u>								
OHM-1024-90 10	Garage, 2nd Floor, Center	1520	1733	1503	<0.00053			

f/cc means fibers per centimeter
"<" means less than.

Analytical Method: Transmission Electron Microscopy
NIOSH 7402

Limit of Detection: 2,000 fibers per filter

ABD 002 0516

Clayton
Environmental

ATTACHMENT B
SAMPLING AND ANALYTICAL METHODS

ABD 002 0517

MDE 0004023

AIRBORNE FIBER SAMPLING AND ANALYSIS
NIOSH METHOD 7400
A Rules

Samples for the determination of airborne fibers were collected by drawing air at measured flowrates through open-face cassettes containing 25 millimeter cellulose ester membrane filters using battery- and electrically-powered portable sampling pumps. Pumps were calibrated before and after sampling to determine and verify flowrates.

Samples were collected with the filter face downward. Area samples were positioned so that the filter is between three and six feet above the floor to approximate workers' breathing zone. Unless otherwise mentioned in the sample description, all area samples are collected at fixed locations throughout the sampling period.

Each sample was analyzed for fibers using the microscopic technique currently specified by the National Institute for Occupational Safety and Health (NIOSH). The technique is as follows: a half-moon shaped sector of each filter is carefully cut from the sample and mounted on a standard microscopy slide, using a mixture of diethyl ozalate and dimethyl phthalate to render the filter transparent.

Fibers, defined as particles having aspect ratios (apparent length to width) of 3 or greater, which were observable on the surface of the filter, were counted using a binocular microscope equipped with 10X eyepieces and a 40X objective with phase contrast illumination. Walton-Beckett graticule fields selected at random on the sample were examined, and fibers greater than 5 micrometers in length were counted until either of two conditions was satisfied:

1. A minimum of 100 fibers were counted in 20 or more fields.
2. A minimum of 100 fields were examined.

Results of the microscopic analysis are used in conjunction with field sampling data (measured flowrates and durations of sampling) to calculate the concentrations of the airborne fibers corresponding to each sample in units of fibers greater than 5 micrometers in length per cubic centimeter of air.

METHOD FOR ANALYSIS OF AIRBORNE ASBESTOS FIBERS
USING TRANSMISSION ELECTRON MICROSCOPY (TEM)
BY THE NIOSH 7402 METHOD

Upon receipt in the laboratory, filters are transferred to a glass slide with a drop of dimethyl formamide/acetic acid clearing solution. After clearing, the filters are carbon coated in a vacuum evaporator. Portions of the cleared/coated filters are excised and placed on 200-mesh copper TEM grids in a wick-type solutional washer containing 100% dimethyl formamide.

Two grids are placed consecutively in the TEM for examination. Twenty openings are examined on each grid at approximately 4,000X magnification. Asbestos structures containing fibers which meet a $\geq 3:1$ length:width aspect ratio, a diameter greater than 0.25 micrometers, and a length greater than 5 micrometers are identified using morphology, selected area electron diffraction, and energy-dispersive x-ray spectroscopy. Fibers are sized (length and width) and are identified as chrysotile, amphibole, ambiguous, or non-asbestos.

Results are reported as total asbestos fibers per square millimeter of filter and asbestos fibers per cubic centimeter of air (asbestos fibers/cc).

NIOSH. Method 7402 for Asbestos Fibers. May 15, 1989.

ABD 002 0519

7/89

MDE 0004025

Clayton
Environmental Services

**ATTACHMENT C
SAMPLING LOCATIONS SITE MAPS**

ABD 002 0520

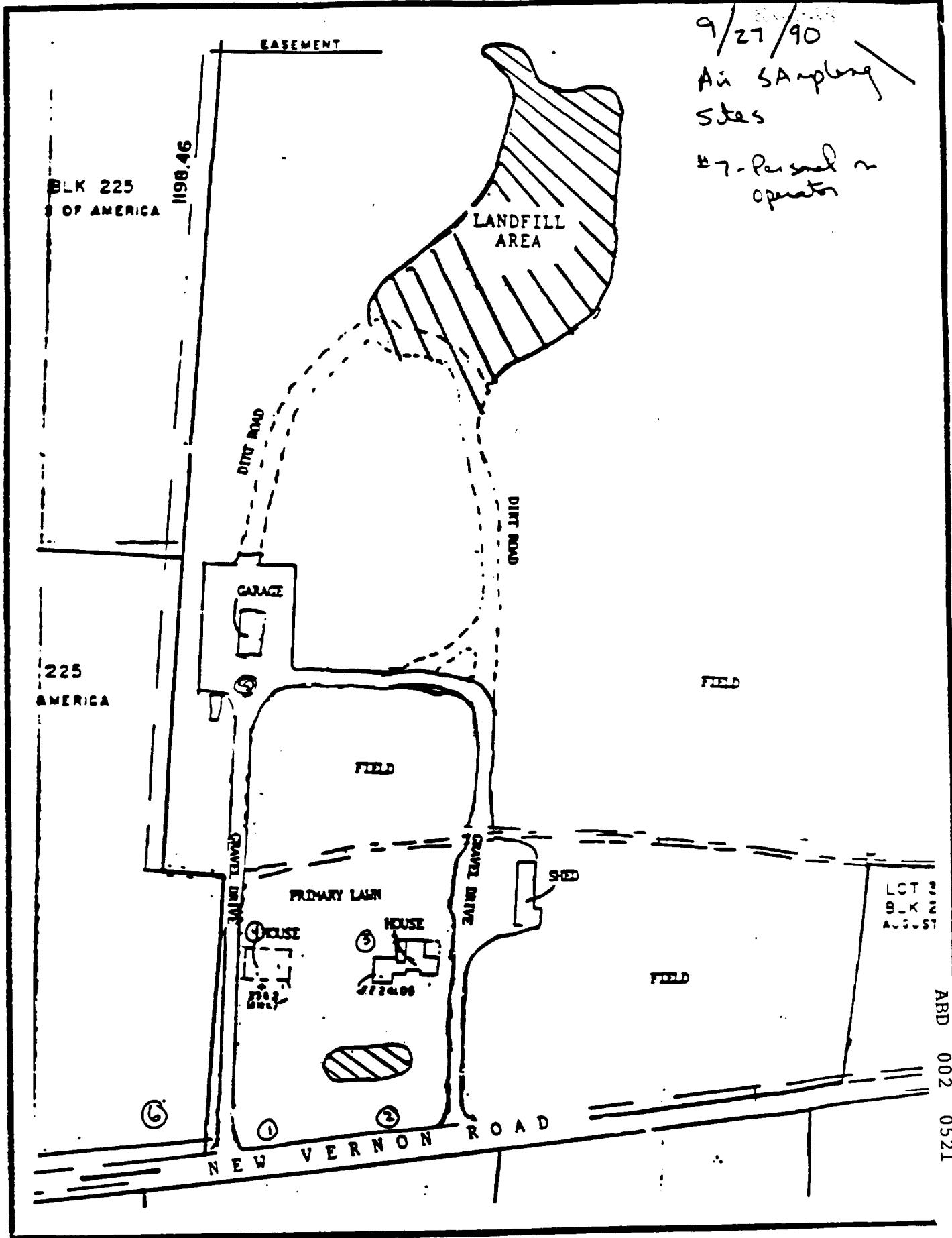
MDE 0004026

NEW VERNON ROAD SITE MAP

Clayton

9/27/90
Air Sampling
sites

#7 - Person &
operator



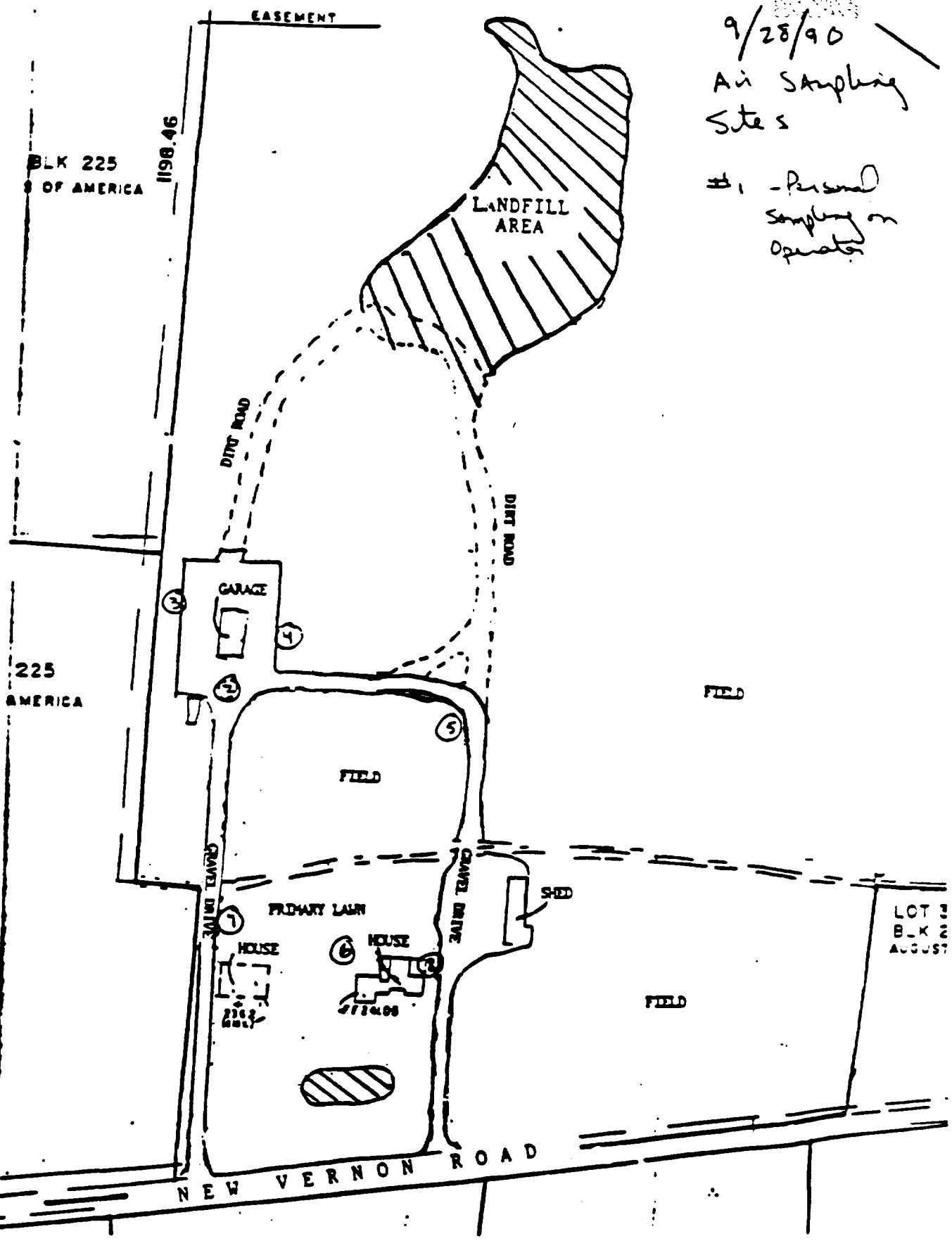
MDE 0004027

Clayton

9/28/90

Air Sampling
Sites

#1 - Personal
Sampling on
operator

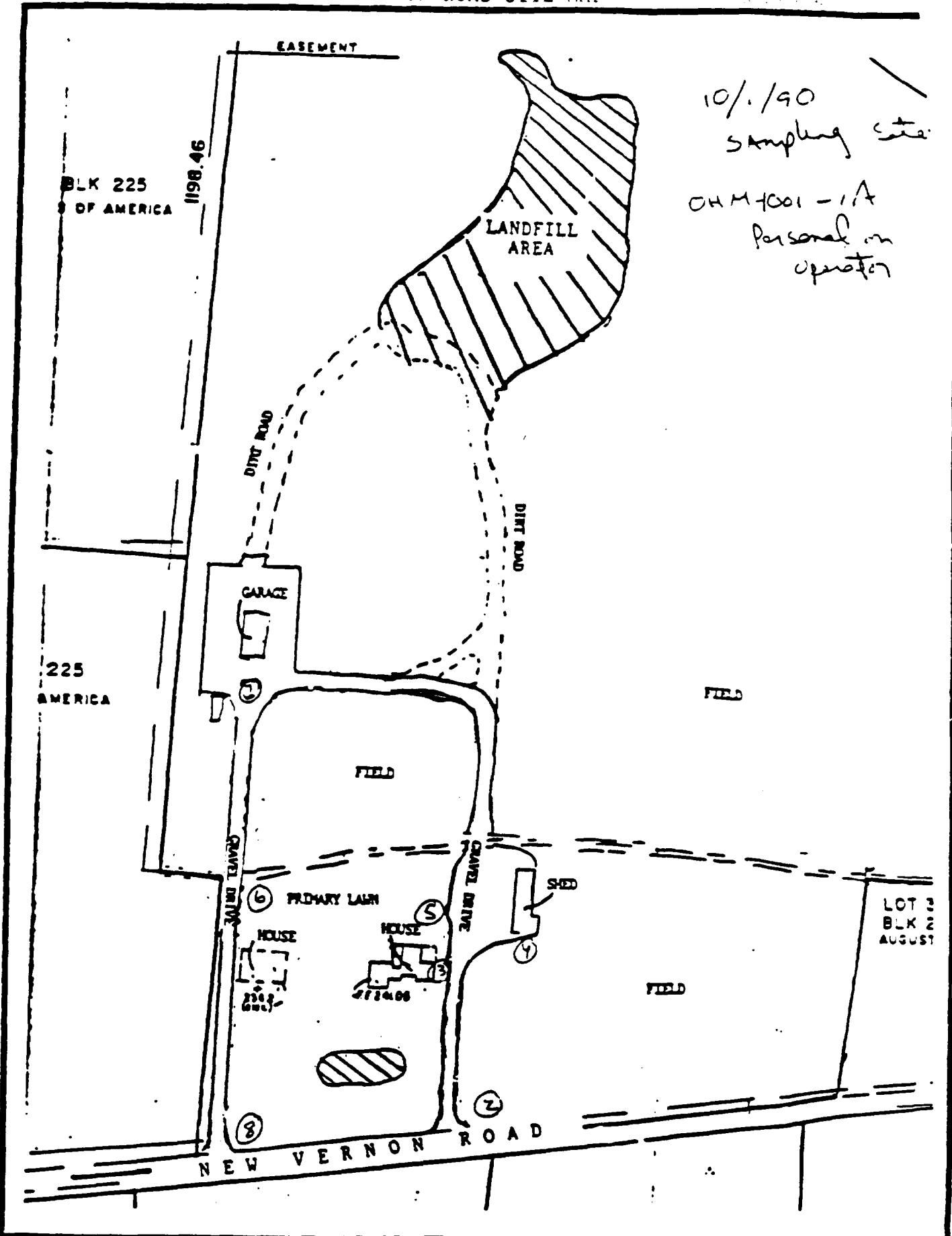


ABD 002 0522

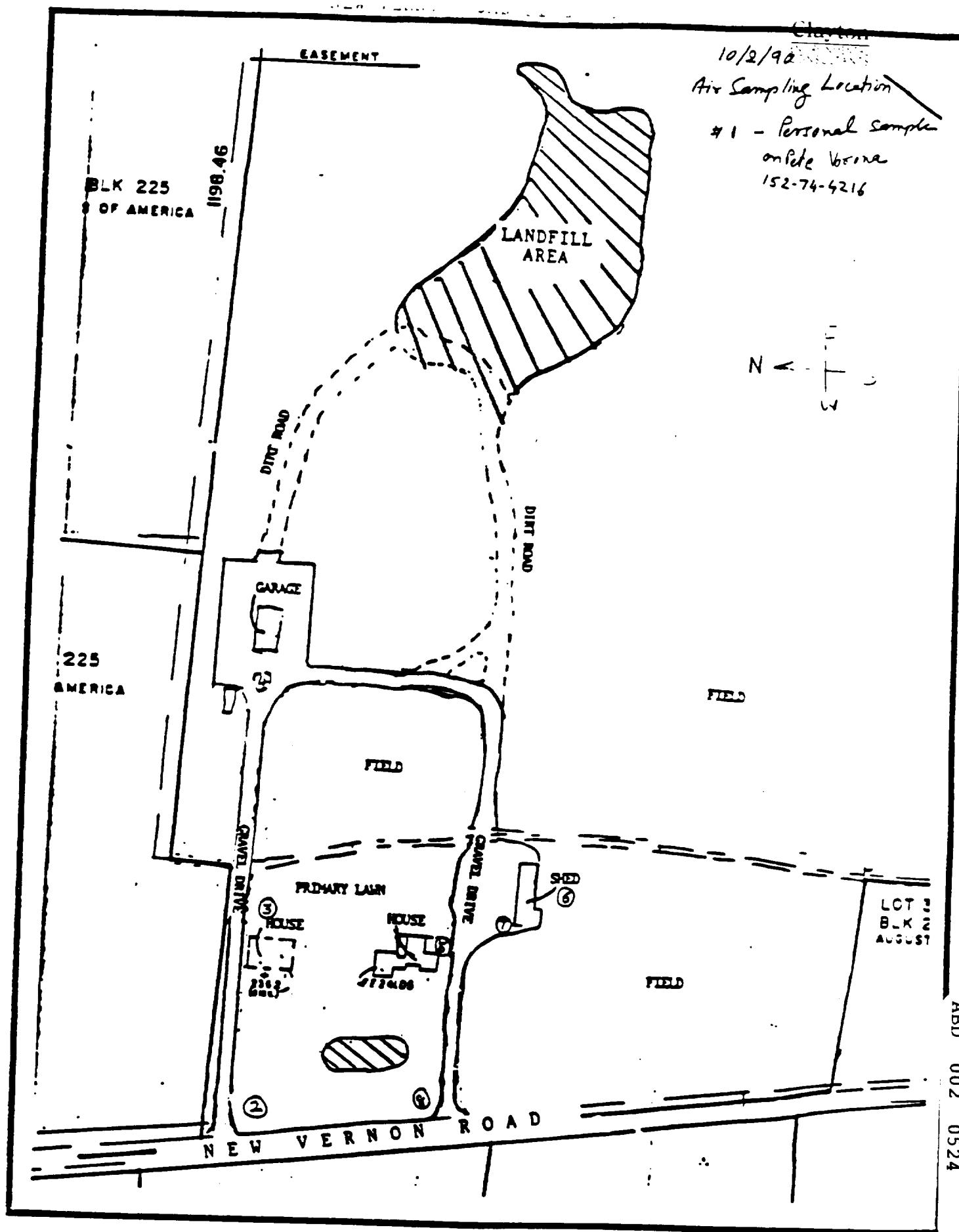
MDE 0004028

NEW VERNON ROAD SITE MAP

Clayton



MDE 0004029

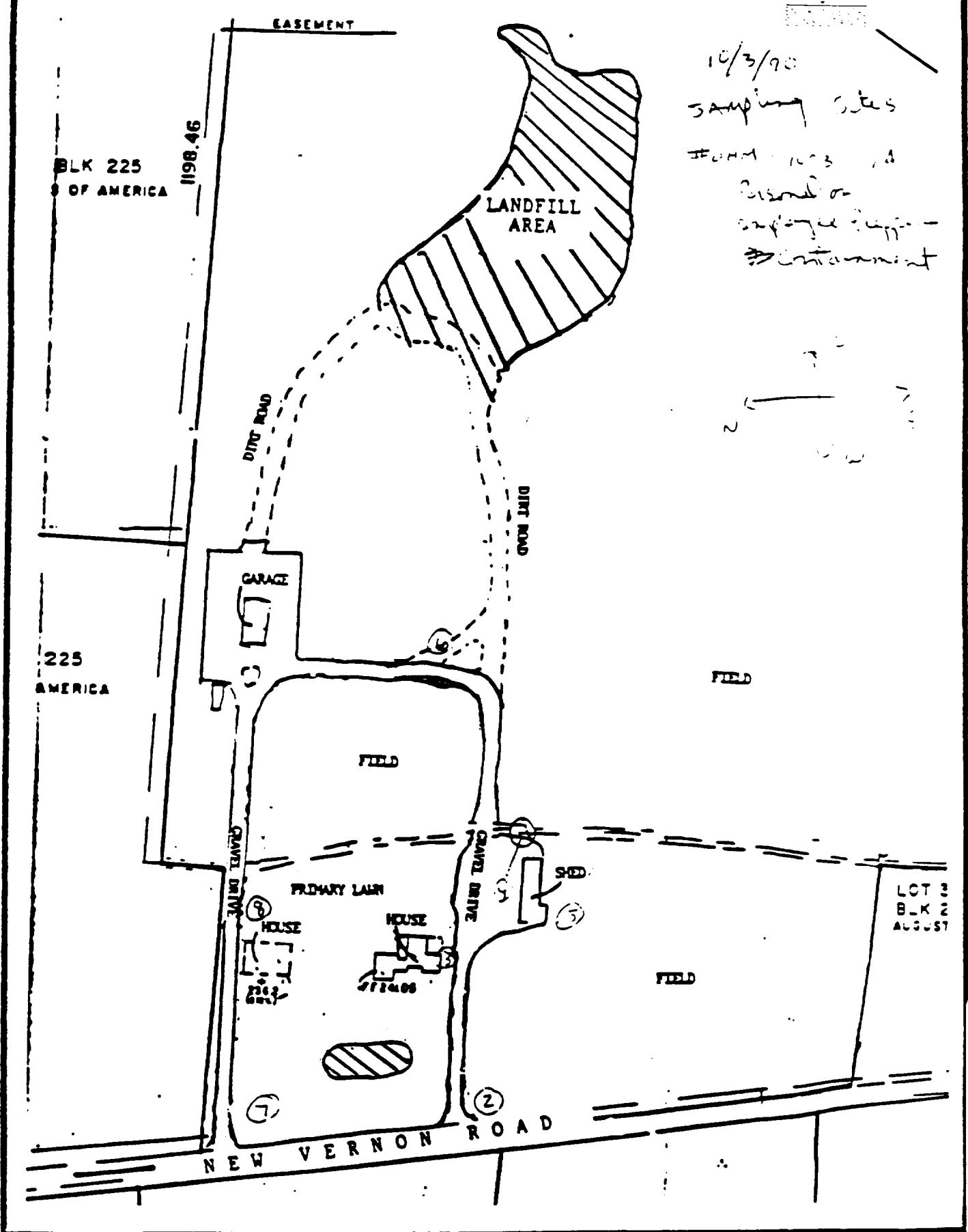


MDE 0004030

Clayton

10/3/90
sampling sites

#001 - 10-3 , A
Person or
employee flagged -
█ Entertainment



ABD 002 0525

MDE 0004031

ABD 002 0526

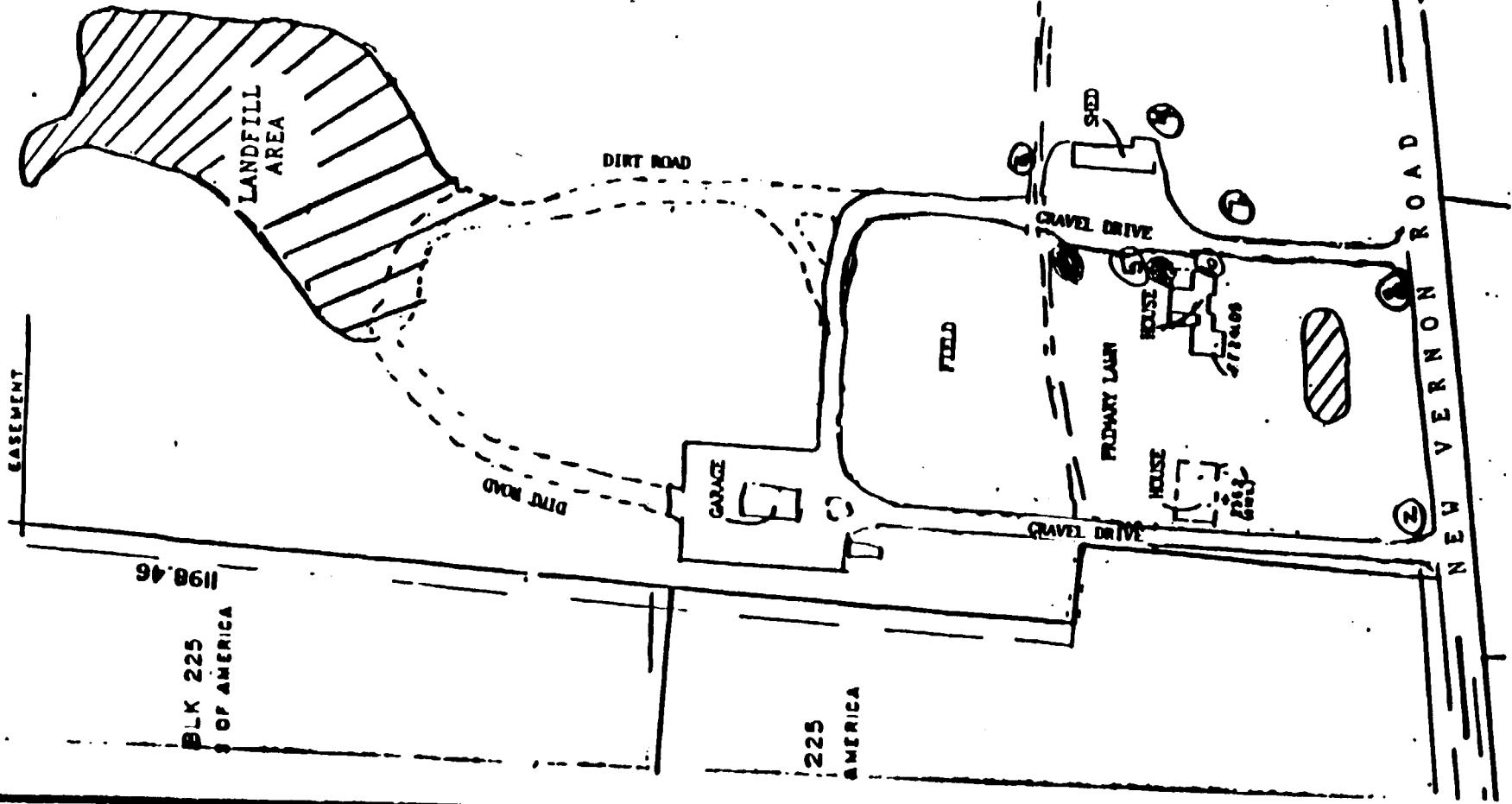
MDE 000-032

NEW VERNON RUMM SITE MAP

Clayton

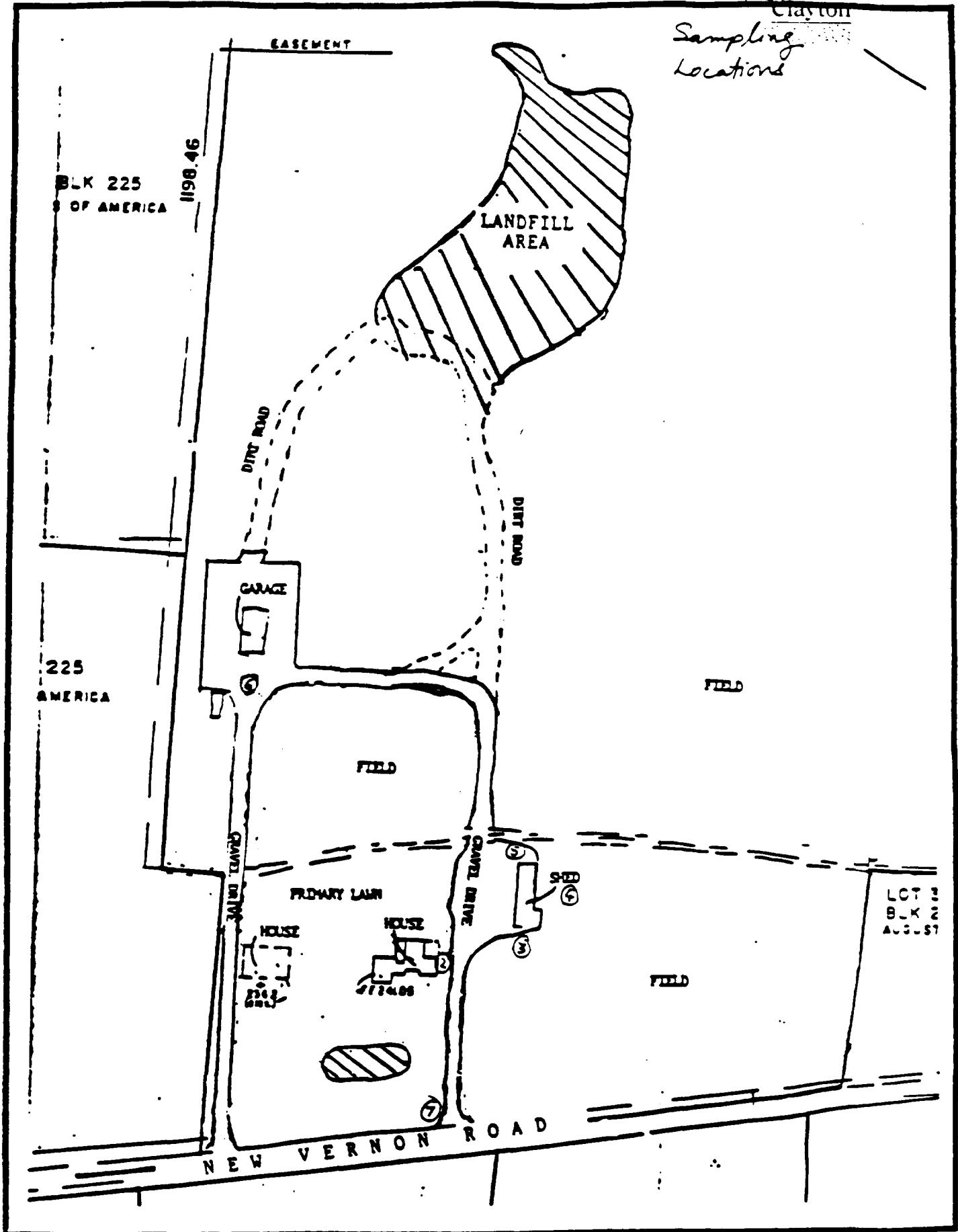
10/4/96

Stamping sites
CML 1004-1A
for SOD
soil ploughed
no frost



Crayton

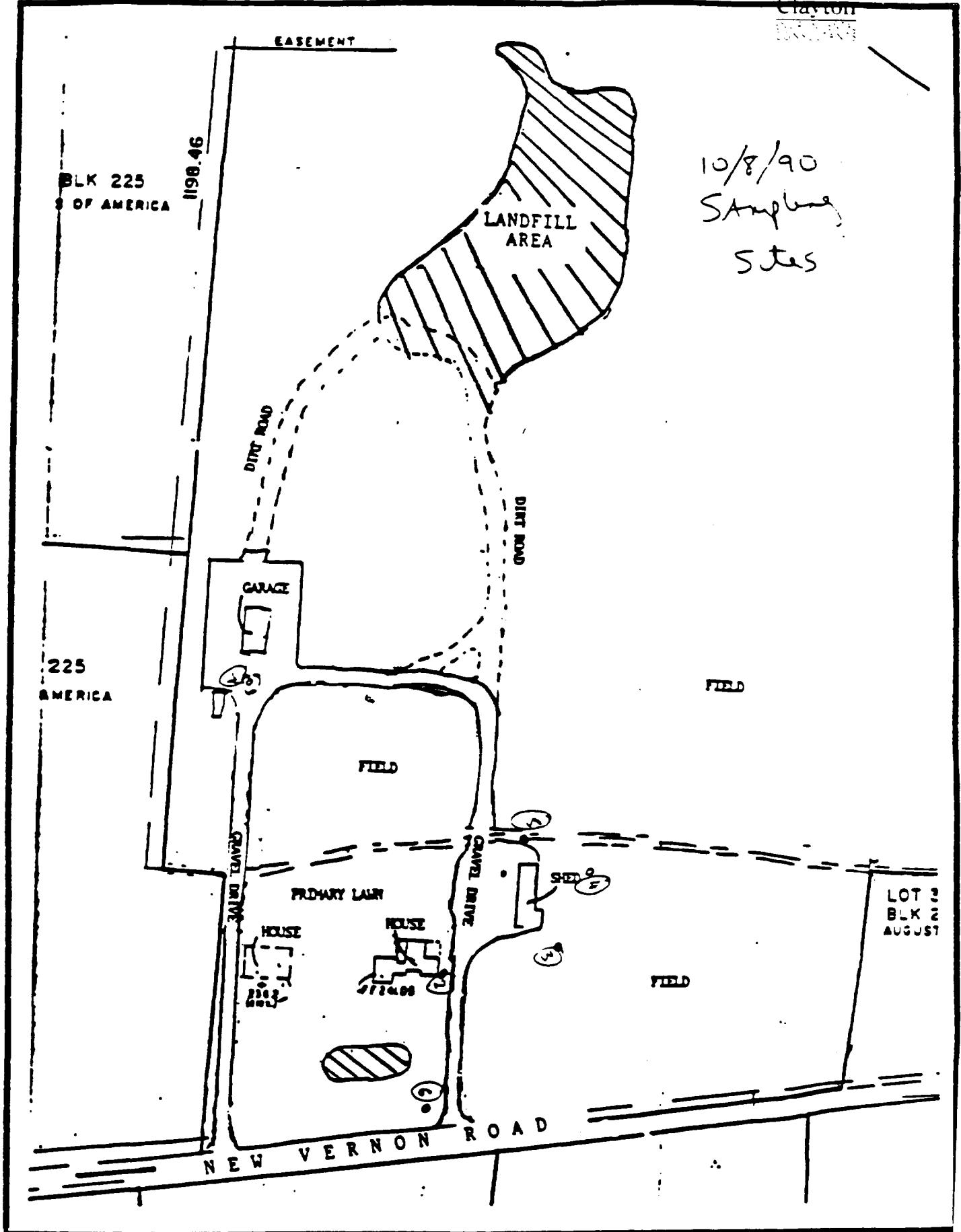
Sampling Locations

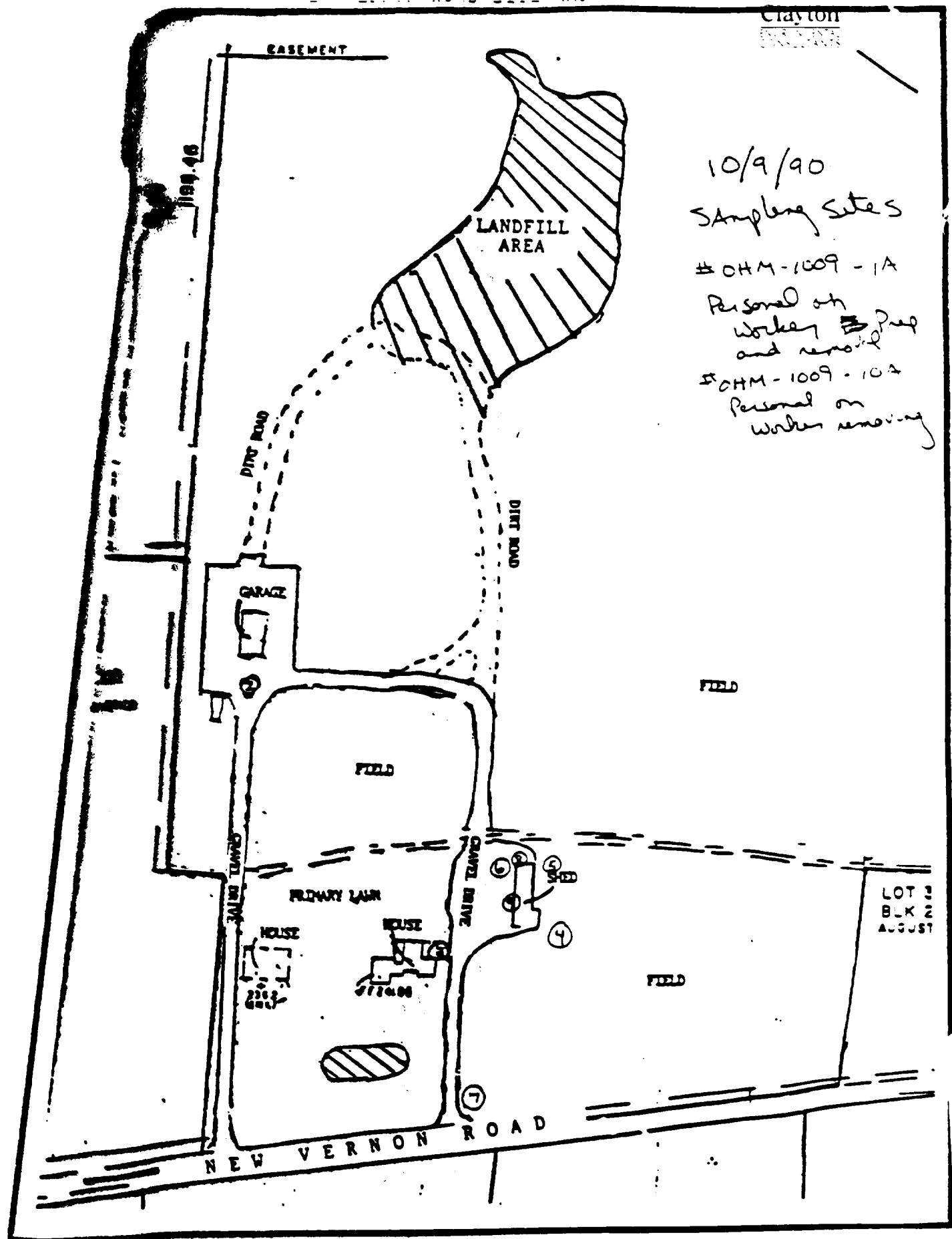


ABD 002 0527

MDE 0004033

10/8/90
Sampling
sites





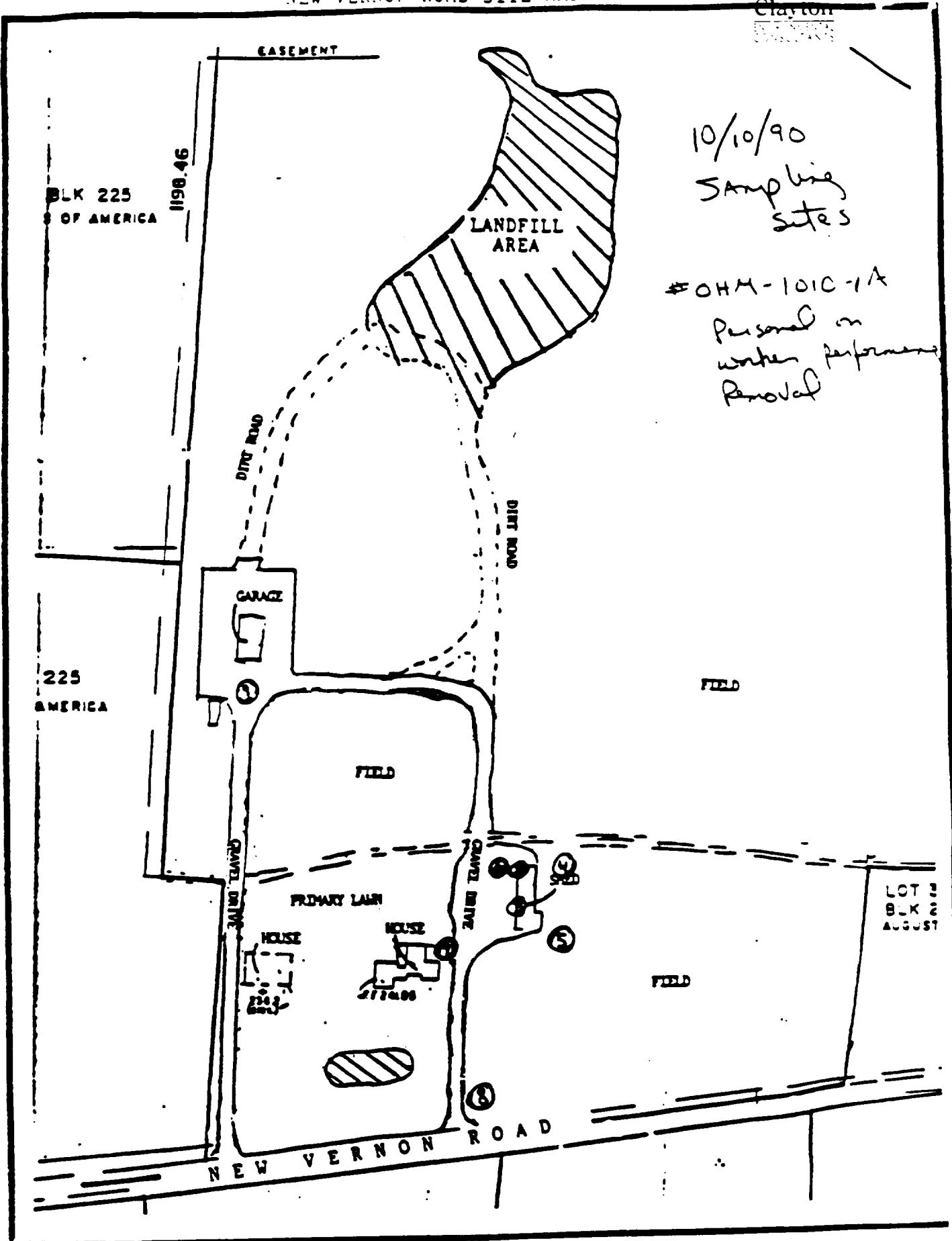
10/9/90
Sampling Sites

OHM-1009 - 1A

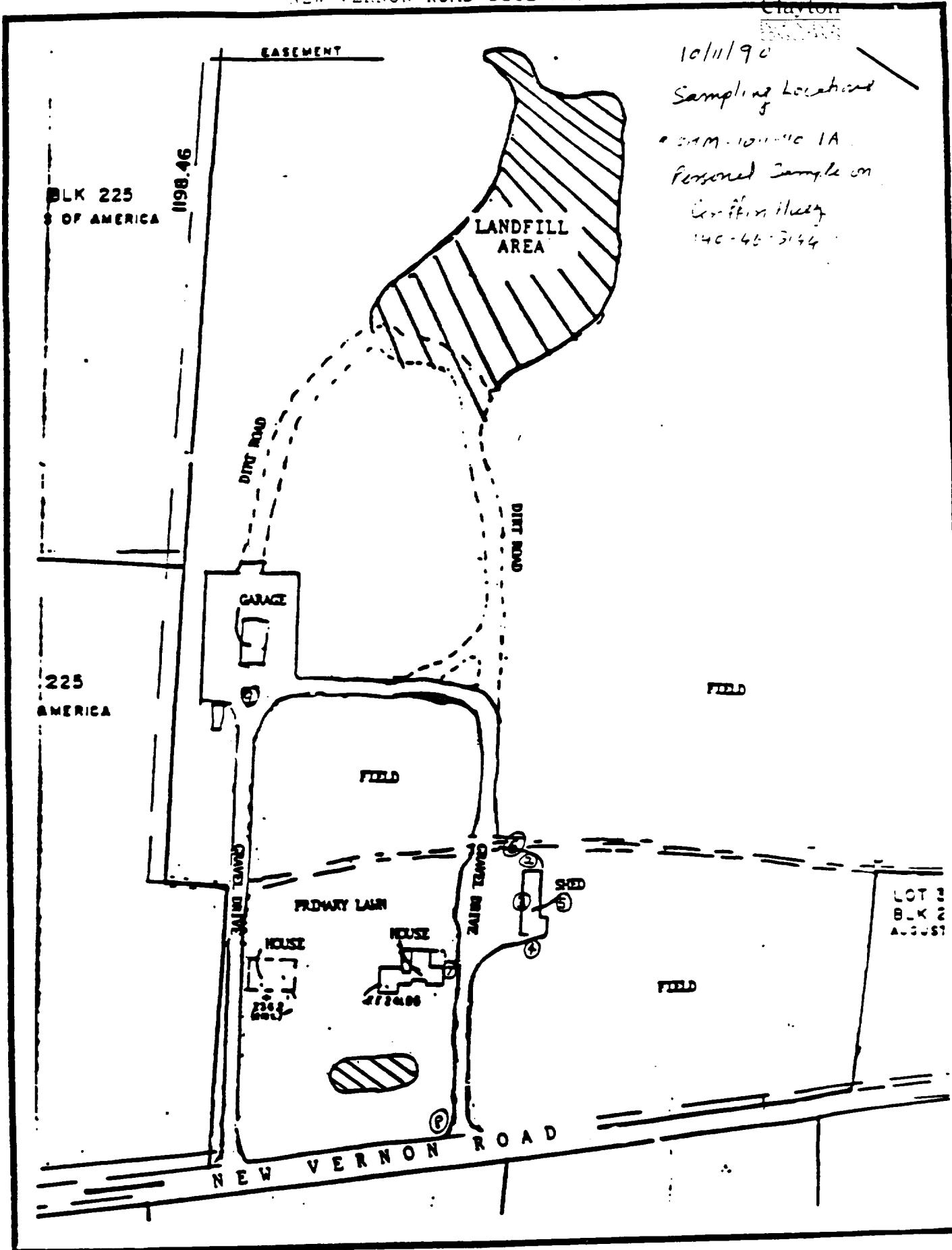
Personnel on
Workers ~~B~~ Pre
and removal

OHM-1009 - 10A

Personnel on
Workers removing



MDE 0004036



Clayton

10/11/90

Sampling Location

• 21M - 1011-10 1A

Personnel Sample on

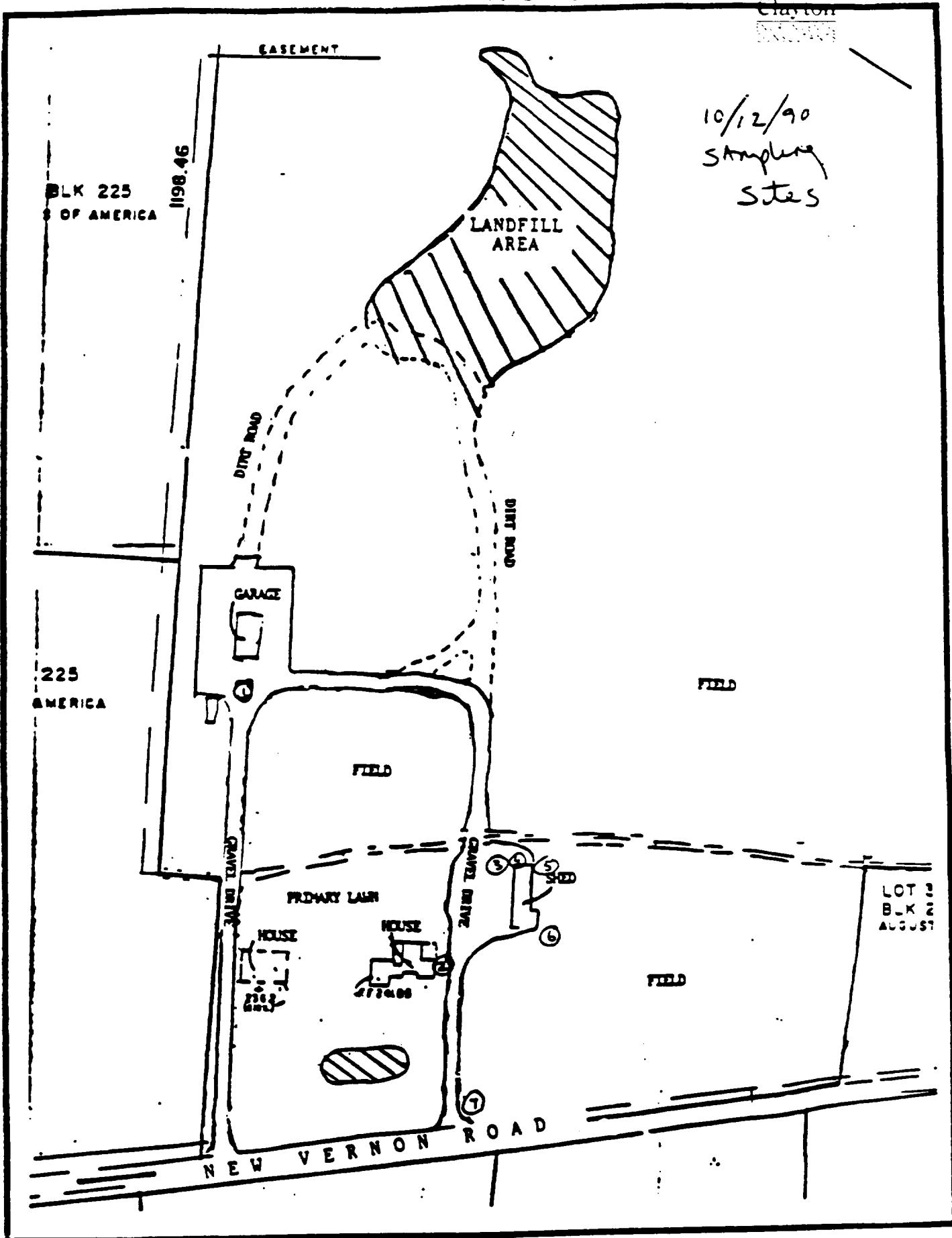
Confining

14C-46-3144

MDE 0004037

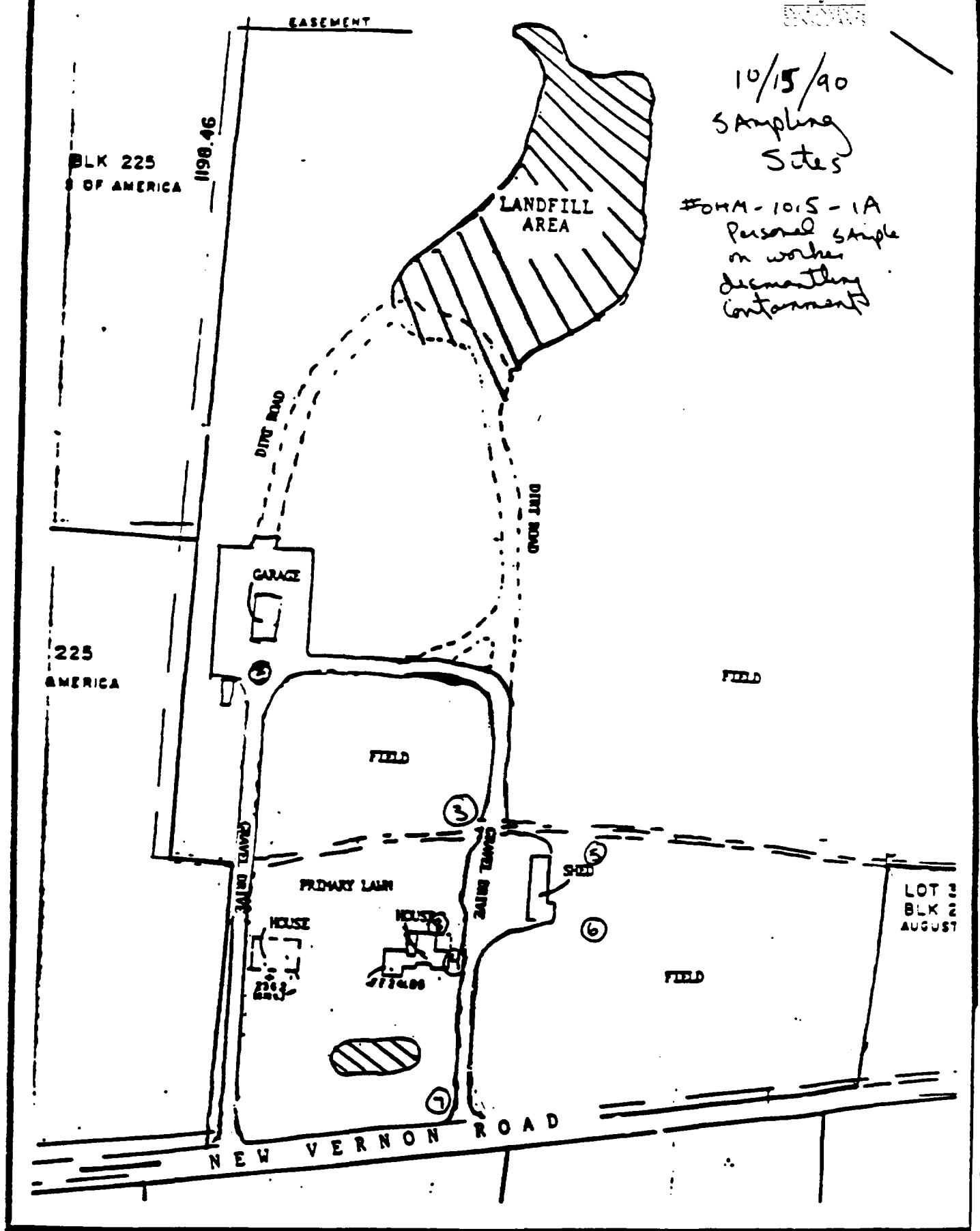
Gravton

10/12/90
Sampling
sites



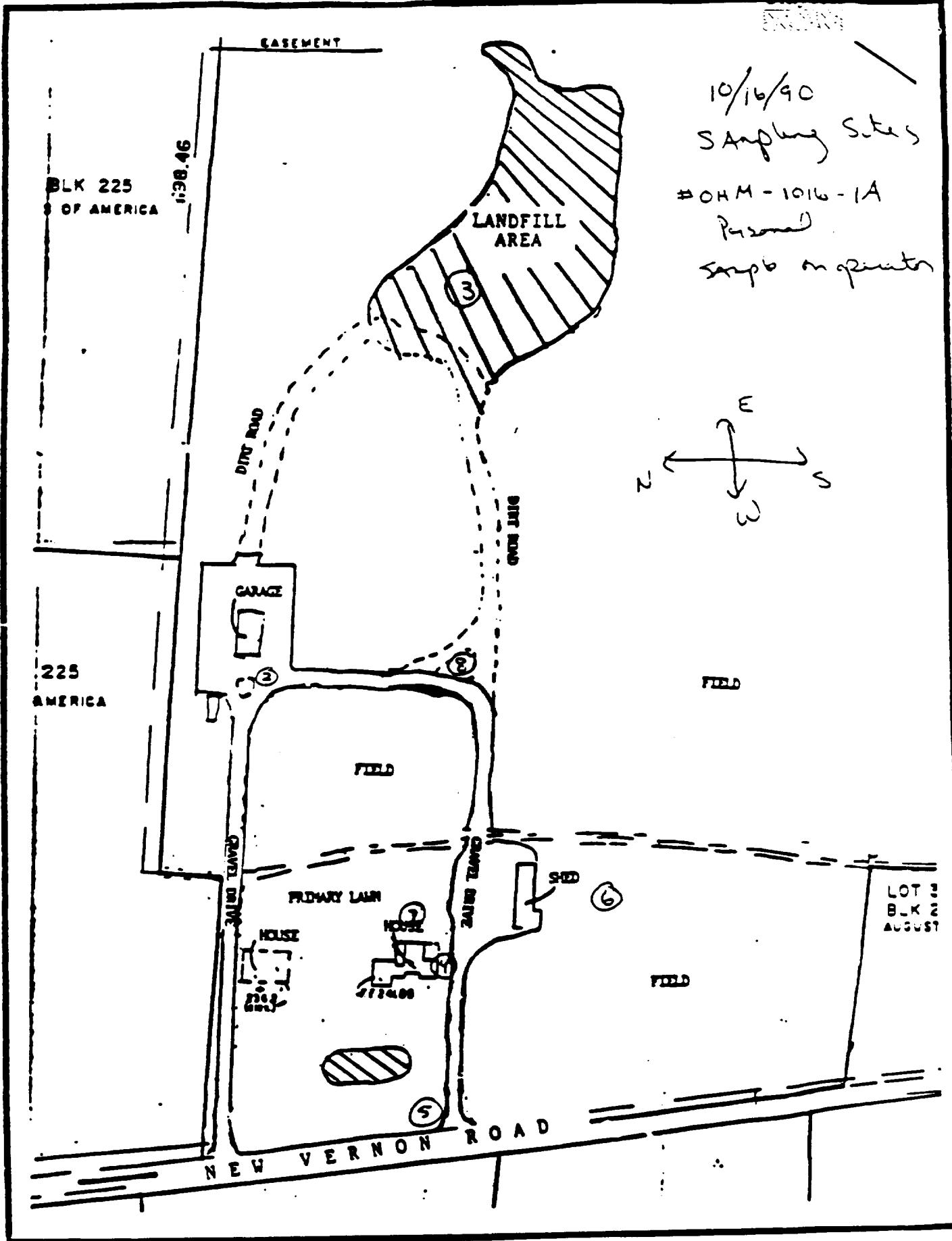
ABD 002 0532

MDE 0004038



10/15/90
Sampling
Sites

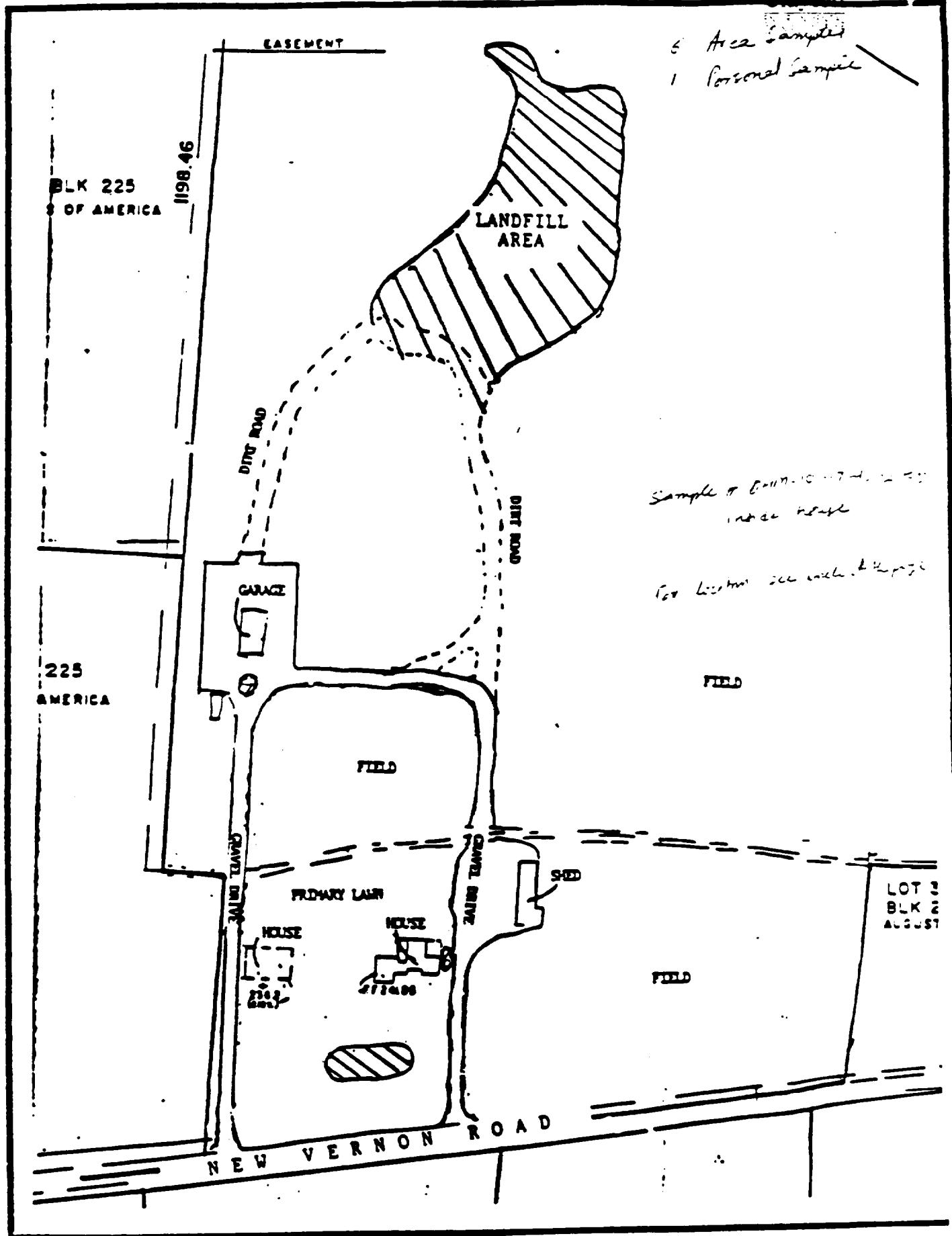
FORM - 10.5 - 1A
Personal Sample
in worker
decontaminating
contaminant



MDE 0004040

NEW VERNON ROAD SITE MAP

Clayton



ABD 002 0535

MDE 0004041

Clayton
County

10/18/90

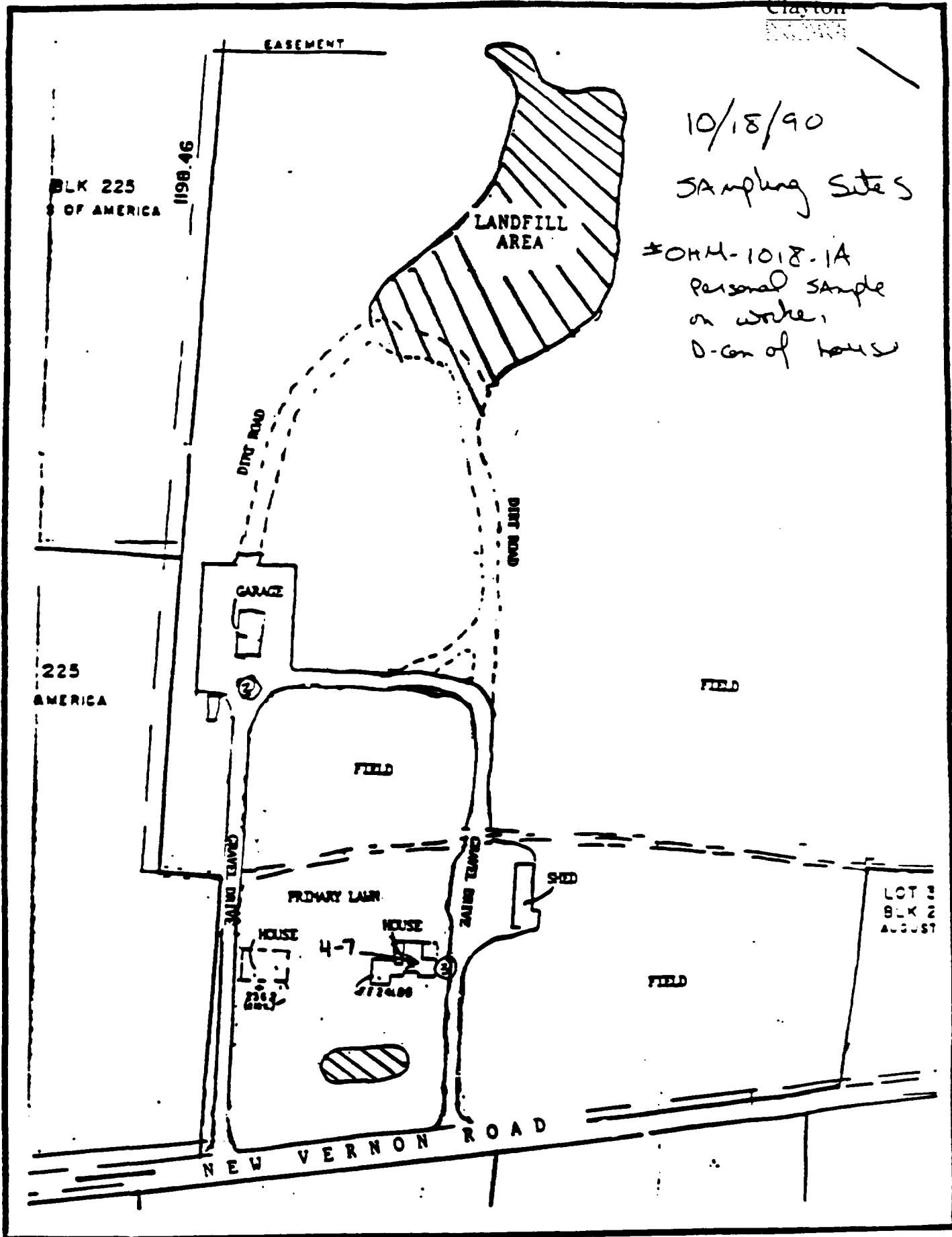
Sampling Sites

#OKM-1018-1A

Personal sample

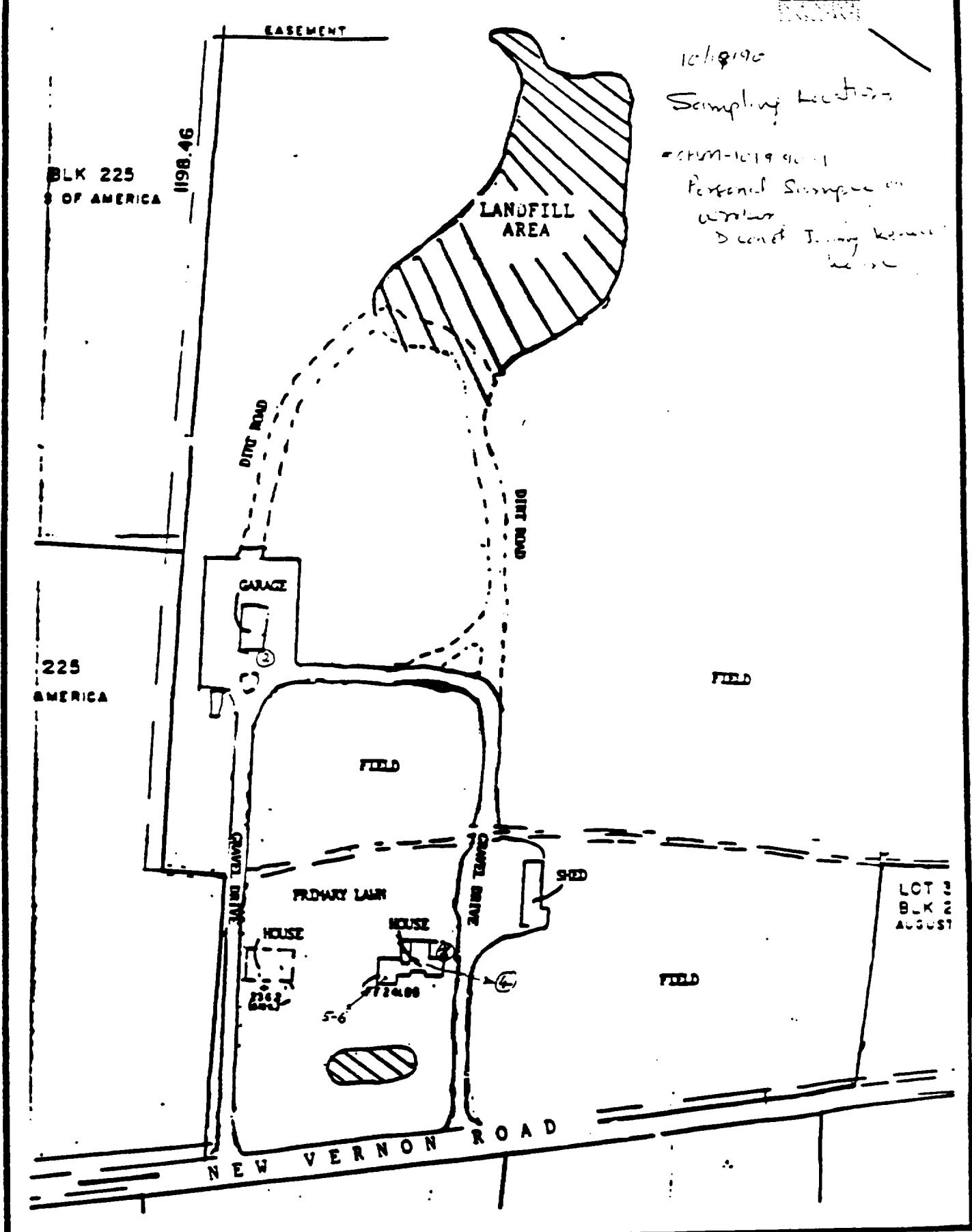
on worker,

D-Gar of house



MDE 0004042

Clayton
Benton



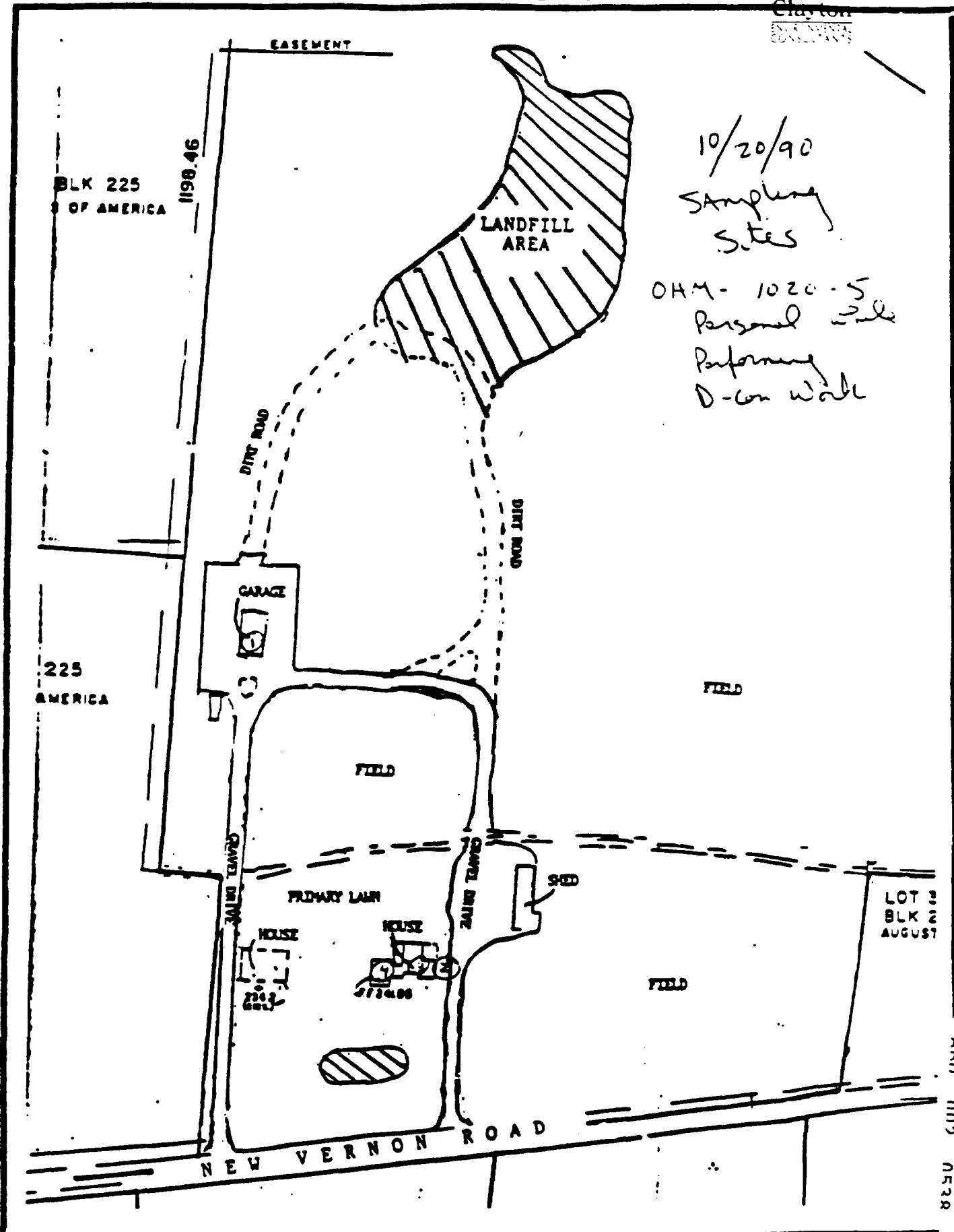
10/19/90
Sampling Locations

• CHUM-101990-1
Personal Suspense on
water
Decor J. Long Keweenaw
Water

MDE 0004043

NEW VERNON ROAD SITE MAP

Clayton



ARMED FORCES

MDE 0004044

NEW VERNON ROAD SITE MAP

Clayton

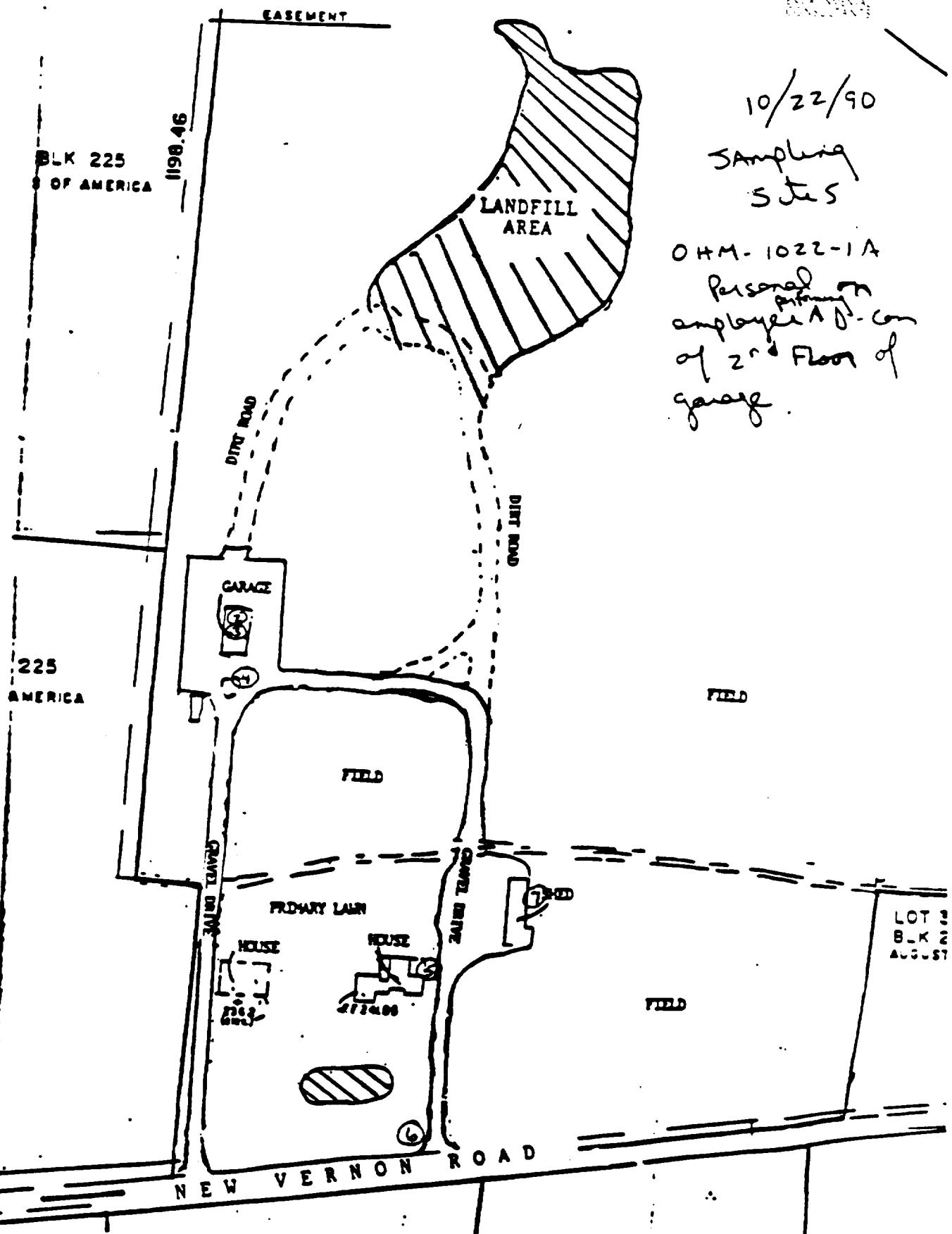
MISSOURI

10/22/90

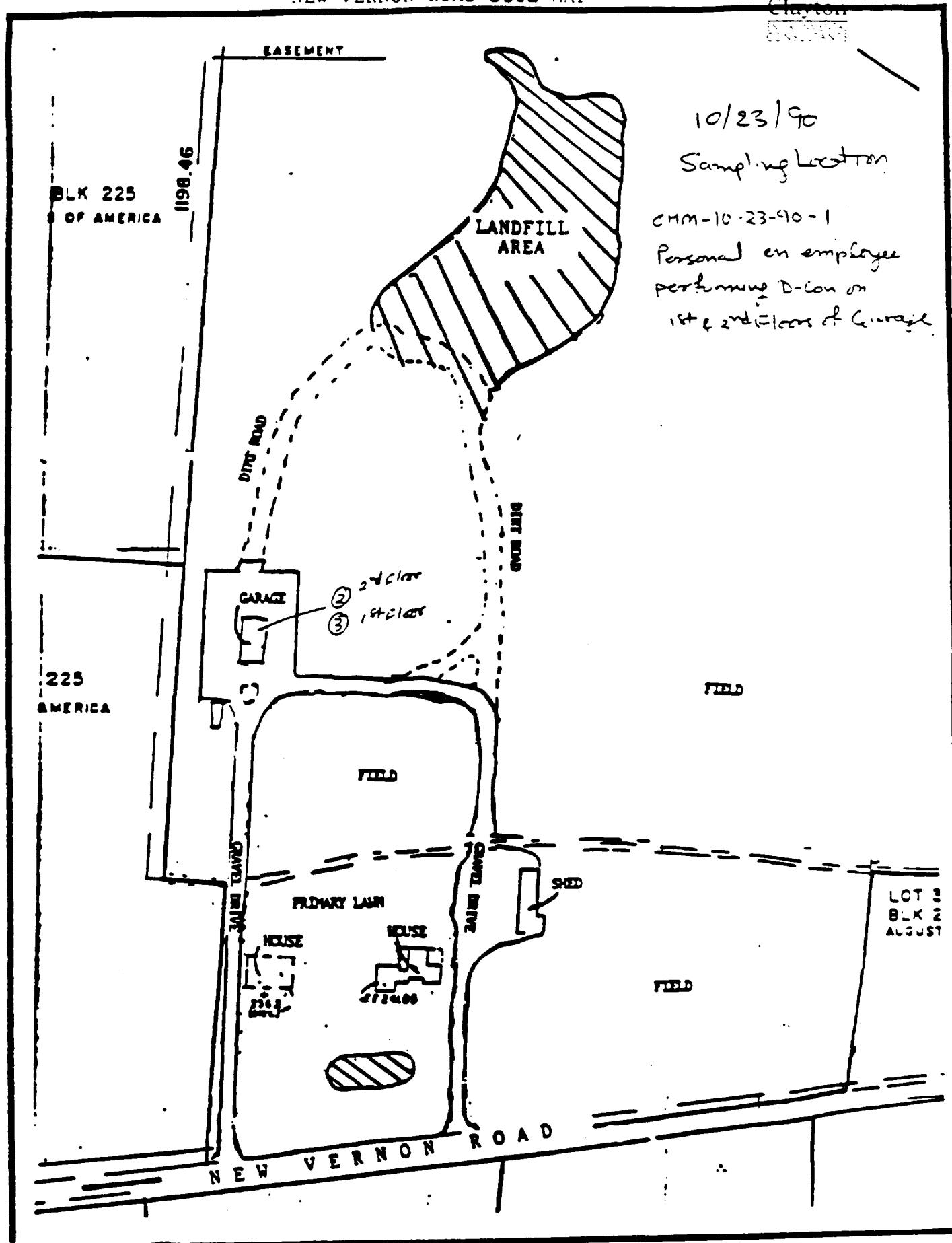
Sampling
sites

OHM-1022-1A

Personal
of employee A.D.-Con
of 2nd Floor of
garage.



MDE 0004045



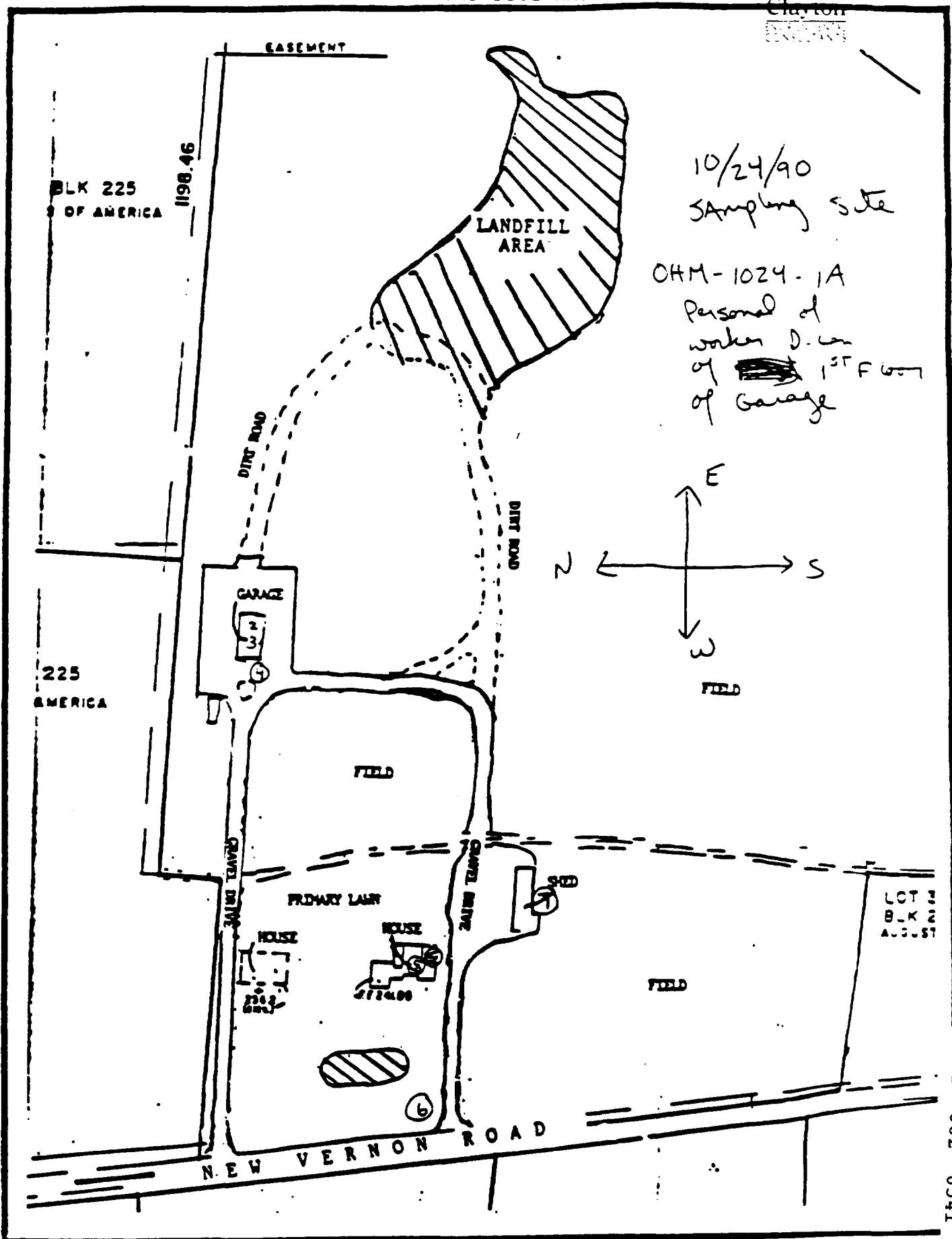
10/23/90

Sampling Location

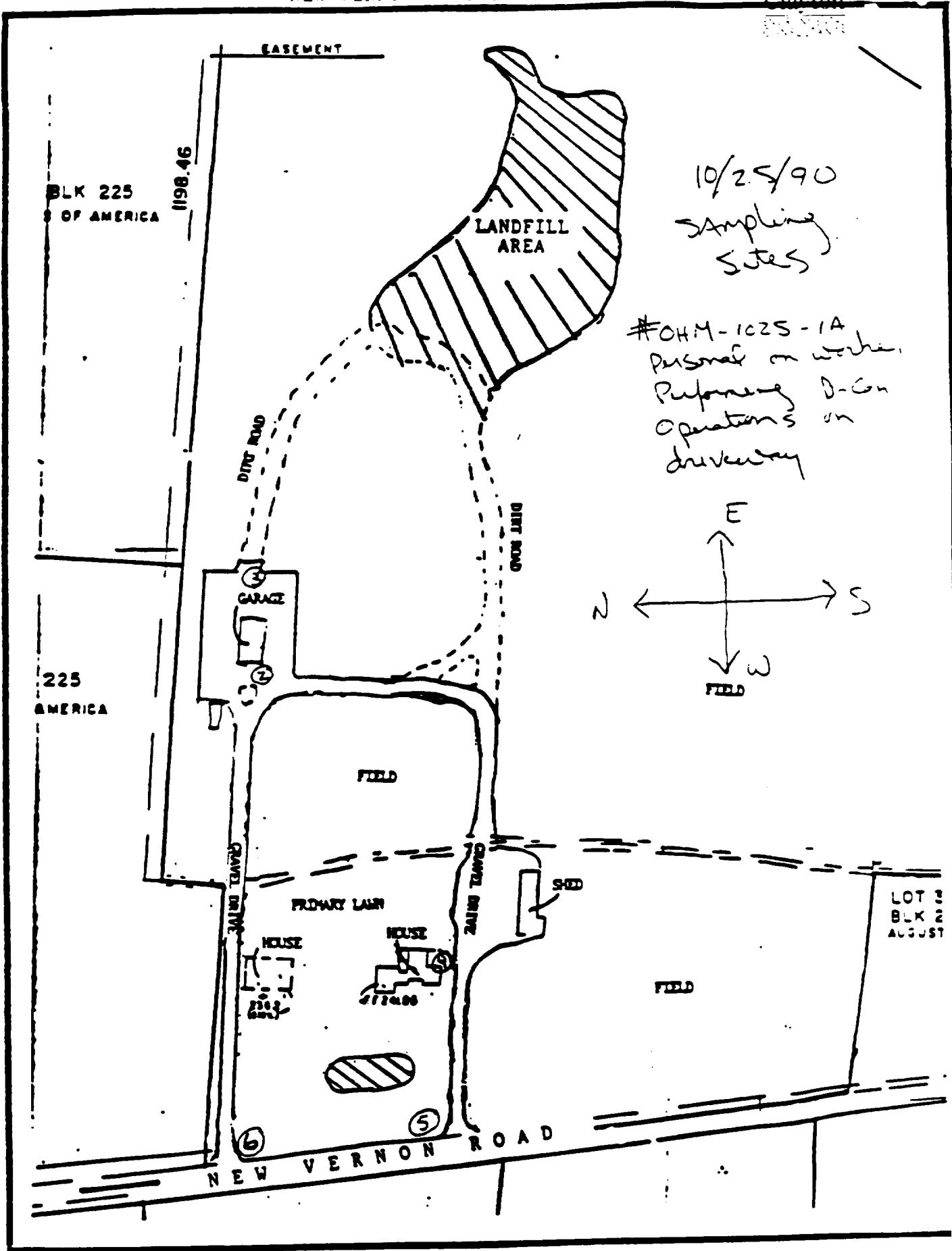
CHM-10-23-90-1

Personal en employee
performing D-con on
1st & 2nd Floors of Garage

MDE 0004046



MDE C004047



MDE 0004048

— בְּנֵי יִשְׂרָאֵל וְבָנָיו וְבָנָתָיו וְבָנָתָיו

~~Clayton~~

— 1 —

10/26/90
Sampling sites

BLK 225
\$ OF AMERICA

1198.46

LANDFILL AREA

225
AMERICA

Garage
Sale

EDWARD LINTON

NEW VERNON ROAD

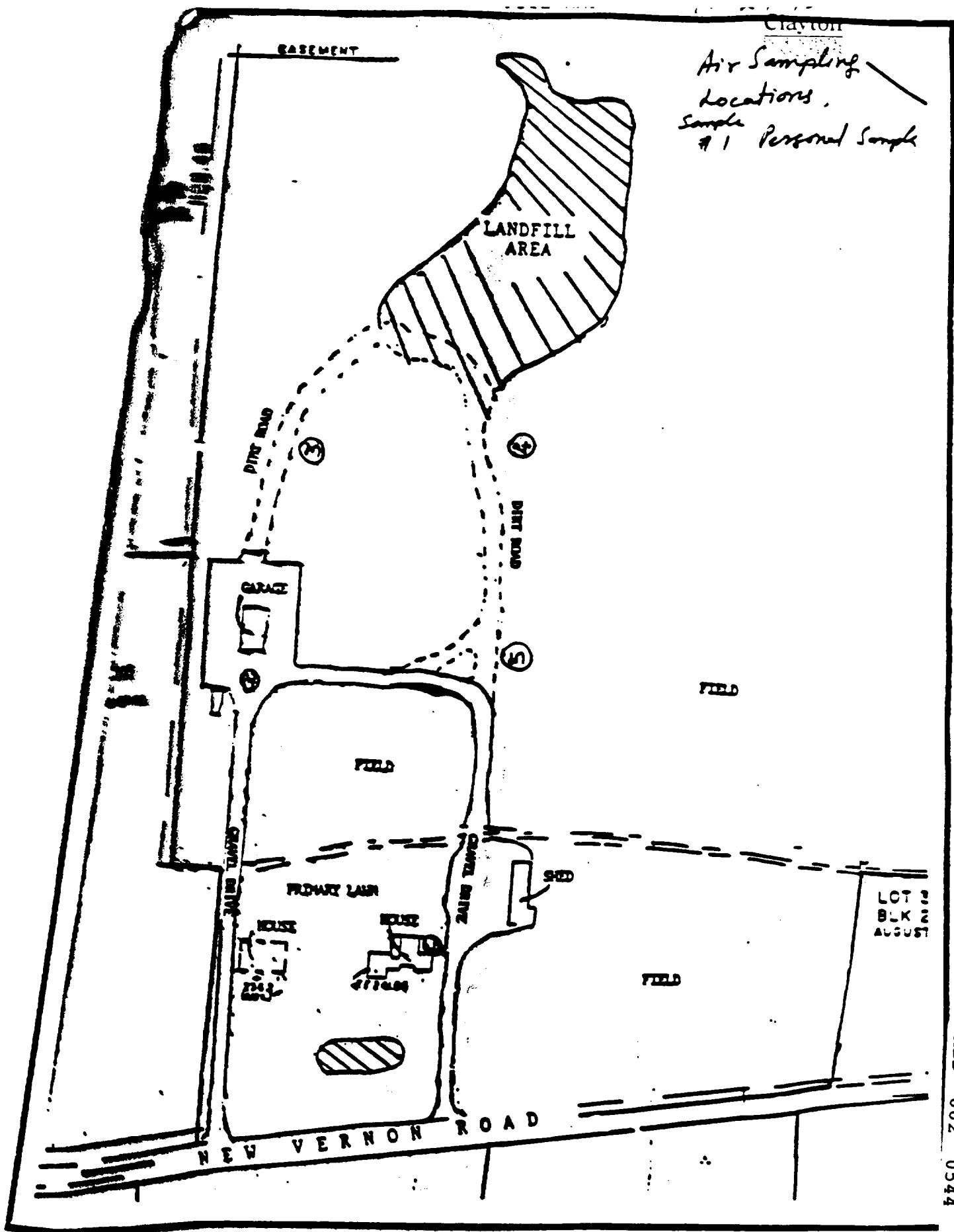
LOT 3
BLK 2
AUGUST

ABD 002 0543

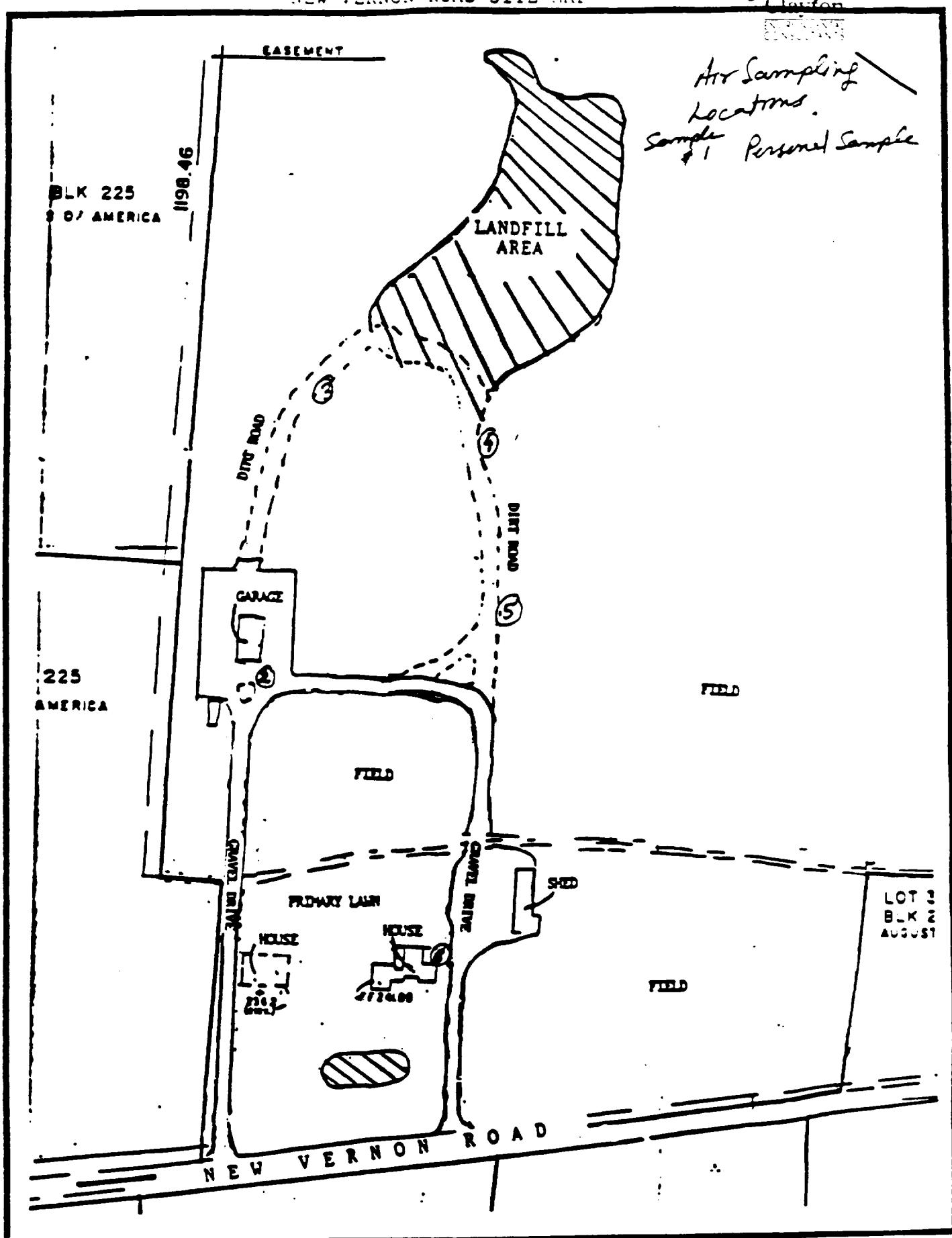
MDE 0004049

Clayton

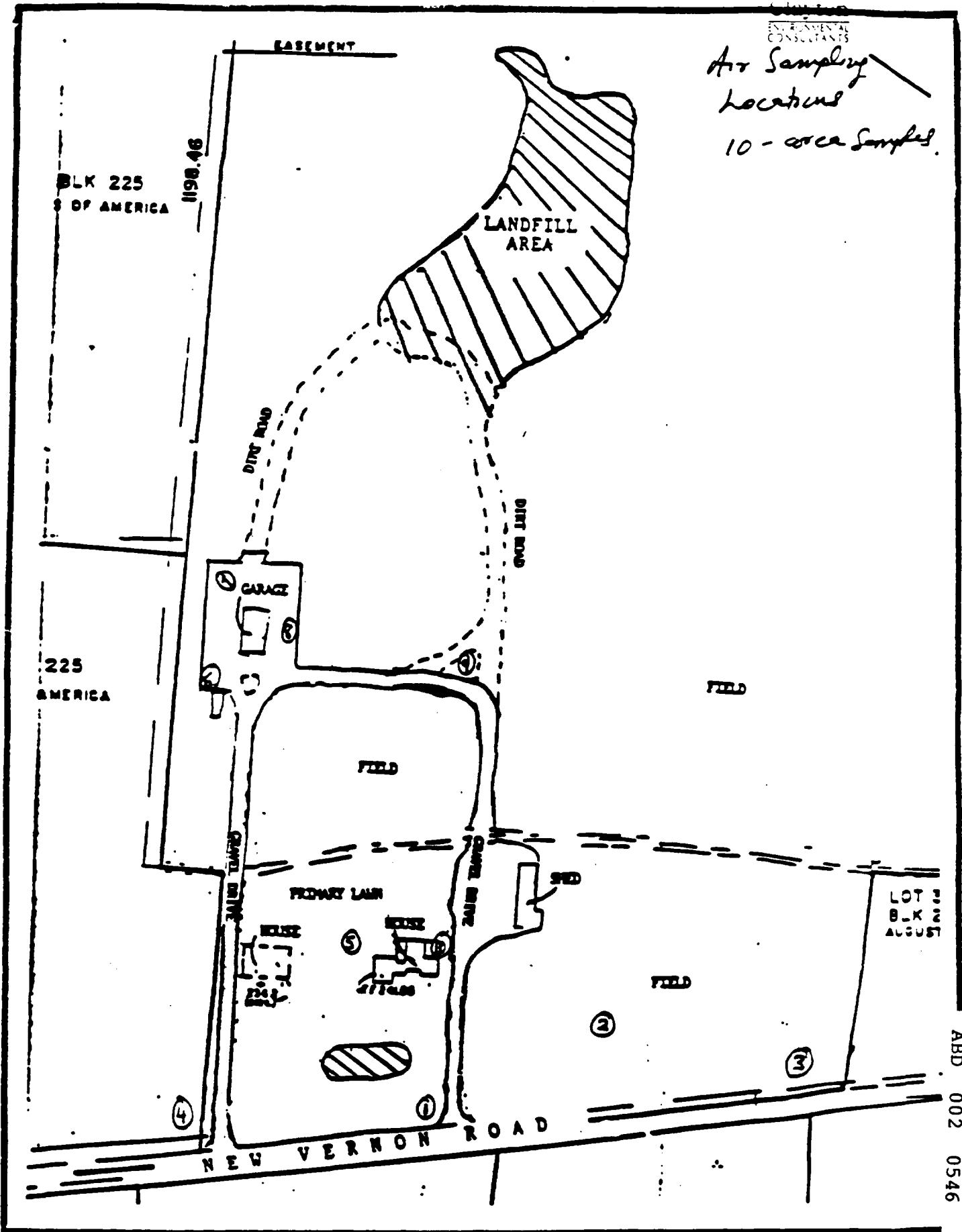
Air Sampling
Locations.
Sample #1 Personal Sample



MDE 0004050



MDE 0004051



MDE 0004052

ATTACHMENT D
LABORATORY SUBMITTALS

ABD 002 0547

MDE 0004053

ATTACHMENT D1
PHASE CONTRAST MICROSCOPY ANALYSIS

ABD 002 0548

MDE 0004054

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

ABD 002 0549

Client: OIMBatch No.: B092801820Project No.: 31204 00Method: NIST 7400 Dates: 10/08/08Filter Size: 25 mm², 37 mm²Microscope: P.A.IMicroscopist: John J. Schmid
11/08/08Date Analyzed: 11/08/08Effective Filter Area: 385 mm², 555 mm²Type of Report: IR

Sample Number	Sample Description	A No (mm)	B Fiber Count (mm)	C Fibers Counted (mm ²)	Blk Concen (mm ⁻²)	D Fiber Density (fibers/mm ²)	E (Optical) Fiber Concentration (fibers/mm ³)		F (Optical) Upper 65% Confidence Line (fibers/mm ³)	
							Fiber Concen (fibers/mm ³)	Concen tation (fibers/mm ³)		
1 <u>140756</u>	<u>9AM-0927-1</u>	<u>1155</u>	<u>3</u>	<u>100</u>	<u>0.03</u>	<u>25</u>	<u><2000</u>	<u><0.002</u>		
2 <u>140752</u>		<u>-</u>	<u>-</u>	<u>1083</u>	<u>5</u>	<u>100</u>	<u>0.05</u>	<u>6</u>	<u>2000</u>	<u>0.002</u>
3 <u>140758</u>		<u>-</u>	<u>-</u>	<u>1163</u>	<u>4</u>	<u>100</u>	<u>0.04</u>	<u>5</u>	<u>2000</u>	<u>0.002</u>
4 <u>140751</u>		<u>-</u>	<u>-</u>	<u>1151</u>	<u>42</u>	<u>100</u>	<u>0.011</u>	<u>5</u>	<u>2000</u>	<u>0.002</u>
5 <u>140750</u>		<u>-</u>	<u>-</u>	<u>1135</u>	<u>41</u>	<u>100</u>	<u>0.015</u>	<u>5</u>	<u>2000</u>	<u>0.002</u>
6 <u>140751</u>		<u>-</u>	<u>-</u>	<u>1138</u>	<u>5</u>	<u>100</u>	<u>0.05</u>	<u>5</u>	<u>2000</u>	<u>0.002</u>
7 <u>140753</u>		<u>-</u>	<u>-</u>	<u>1132</u>	<u>0</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>2000</u>	<u>0</u>
8 <u>140754</u>		<u>-</u>	<u>-</u>	<u>1135</u>	<u>0</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>2000</u>	<u>0</u>
9 <u>140755</u>		<u>-</u>	<u>-</u>	<u>1135</u>	<u>32</u>	<u>100</u>	<u>0.035</u>	<u>5</u>	<u><2000</u>	<u><0.002</u>
10 <u>140756</u>		<u>-</u>	<u>-</u>	<u>1155</u>	<u>32</u>	<u>100</u>	<u>0.035</u>	<u>5</u>	<u><2000</u>	<u><0.002</u>
11 <u>-</u>		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
12 <u>-</u>		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
13 <u>-</u>		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
14 <u>-</u>		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
15 <u>-</u>		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Black Average:		<u>C</u>	<u>100</u>	<u>..</u>	<u>..</u>	<u>..</u>	<u>..</u>	<u>..</u>	<u>..</u>	<u>..</u>
Inclusion Lenses:		<u>..</u>	<u>..</u>	<u>0.04</u>	<u>5</u>	<u>2,000</u>	<u>4,000</u>	<u>..</u>	<u>..</u>	<u>..</u>

(W) Reviewed by: E.J.C.Date: 11/08/08

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Client: CIM
 Batch No.: B01928 01820
 Project No.: 3120400

Method: PCM Rules Rules: A B
1926-58

Microscope: R 81

Field Area (mm^2/field): 0.02551

Fiber Size: 25 mm (micron) 37 mm (micron)

Log In Date: 7/25/90
 Date Analyzed: 7/25/90

Microscopic: dry (check one)

Effective Filter Area: 385 mm² (micron) 0.55 mm² (micron)

Type of Report: II

Sample Number	Sample Identification	As Volume (mls)	Fibers Counted (mls)	Fields Counted (fields)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ²)	(Optional) Fiber Concentration (fibers/ml)	(Optional) Fiber Concentration (fibers/mic)	(Optional) Upper 95% Confidence Limit (fibers/ml)
1	<u>146792</u> <u>PCM 0927-77</u>	<u>0.96</u>	<u>415</u>	<u>100</u>	<u>0.0415</u>	<u>5</u>	<u>2000</u>	<u>0.003</u>	
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
Blank Average:		..	0	..	..	..	..	..	..
Detection Limits:		..	..	..	0.04	3	2,000 <small>±</small> 4,000 <small>±</small>	..	..

QC Reviewed By:

CCY

Date: 7/28/90
 Form PCM 008 (2/26/90)

(1)

10/19/90

WORKSHEET FOR FIBER COUNT RESULTS BY ~~MIKE~~² CONTRAST MICROSCOPY (PCM)Chart: OIMBatch No.: B100101831

Project No.: _____

Method: opm 1926 58 Rate: 1000Microscope: P.81Field Area (mm²/field): 0.001854Fiber Size: 25 mm 37.5 mmLog In Date: 10/19/90Date Analyzed 10/19/90Microscopist: Ranjay P. and N. C. M.Effective Filter Area 385 mm² 0.55 mm²Type of Report: II

Sample Number	Sample Identification	Air Volume (liter)	Fibers Counted (liter)	Fields Counted (field)	Blank Corrected Fiber Count (fiber/field)	Fiber Density ¹ (fibers/mm ²)	(Optional) Fiber Concentration (fiber/liter)	(Optional) Fiber Concentration (fiber/liter)	(Optional) Upper 95% Confidence Limit (fiber/liter)
1	<u>1110572</u>	<u>opm-0928-1A</u>	<u>1088</u>	<u>3</u>	<u>100</u>	<u>0.03</u>	<u>2.5</u>	<u>12000</u>	<u>10,002</u>
2	_____	_____	_____	_____	_____	_____	_____	_____	_____
3	_____	_____	_____	_____	_____	_____	_____	_____	_____
4	_____	_____	_____	_____	_____	_____	_____	_____	_____
5	_____	_____	_____	_____	_____	_____	_____	_____	_____
6	_____	_____	_____	_____	_____	_____	_____	_____	_____
7	_____	_____	_____	_____	_____	_____	_____	_____	_____
8	_____	_____	_____	_____	_____	_____	_____	_____	_____
9	_____	_____	_____	_____	_____	_____	_____	_____	_____
10	_____	_____	_____	_____	_____	_____	_____	_____	_____
11	_____	_____	_____	_____	_____	_____	_____	_____	_____
12	_____	_____	_____	_____	_____	_____	_____	_____	_____
13	_____	_____	_____	_____	_____	_____	_____	_____	_____
14	_____	_____	_____	_____	_____	_____	_____	_____	_____
15	_____	_____	_____	_____	_____	_____	_____	_____	_____
16	_____	_____	_____	_____	_____	_____	..	..	..
Blank Average:		..	..	0	100	..			
Detection Limit:		..	..	..	..	0.04	5	2,000 ^W 4,000 ^W	..

QC Reviewed By: OPDate: 10/21/90
Form PCM 008 (2/26/90)

BILLE DULUZ

MDE 0004058

ABD 002 0552

WORKSHEET FOR FIBER COUNT RESULTS BY PHA: E CONTRAST MICROSCOPY (PCM)

Log In Date: 10/1/11
 Date Analyzed 10/1/11
 Microscope: Leitz Labophot 2
Contraf 10x
100x
40x
250mm mm
Field Area (mm²): 37.5
Fiber Size: 25-50 μm
Method: NIST 7100 Rate: 400
Batch No.: 310C101631
Project No.: 0111
Client: Clayton Environmental Consultants

Type of Report: 1B

Sample Number	Sample Description	A		B		C		(Optimum Fiber Concentration (mm ⁻³))	Fiber Concentration (mm ⁻³)	Concentration (mm ⁻³)	Concentration (mm ⁻³)	(Optimum Upper 95% Confidence Limit (mm ⁻³))
		No.	Volume (mm ³)	No.	Volume (mm ³)	No.	Volume (mm ³)					
1 M10873	Char. CTRP-2	1221	1	100	0.01	15	1	12000	12000	<0.002	<0.002	12000
2 M10874	1-3	1218	2	100	0.03	1.5	1	12000	12000	<0.002	<0.002	12000
3 M10875	1-4	1226	1/2	100	0.005	1.5	1	12000	12000	<0.002	<0.002	12000
4 M10876	-1--5	1211	4	100	0.041	5	1	12000	12000	<0.002	<0.002	12000
5 M10877	-6	1184	2	100	0.02	1.5	1	12000	12000	<0.002	<0.002	12000
6 M10878	-7	1183	1	100	0.01	1.5	1	12000	12000	<0.002	<0.002	12000
7 M10879	-8	1189	2	100	0.02	1.5	1	12000	12000	<0.002	<0.002	12000
8 M10880	Blank	-	0	100	-	5	1	12000	12000	<0.002	<0.002	12000
9 Record	14.6873	1221	2	100	0.02	1.5	1	12000	12000	<0.002	<0.002	12000
10												
11												
12												
13												
14												
15												
Blank Average:			0	100	..	..	..	5	(2.000 mm ⁻³)	4.000 mm ⁻³	..	..
Detection limits:								004	..	..	..	..

QC Reviewed By: CJL Date: 10/1/11
 Form PCM 000 (12/26/90)

EPLR - 10/18/90

①

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Client: CHM
Batch No.: 11002018412
Project No.: 31201-00Microscope: B+LLog In Date: 10/12/90
Date Analyzed 10/12/90Method: OKM 1920-SG Rate: 8 mm/minFilter Size: 25 mm² 37 mm²Microscopist: Danijey ChaudhuryEffective Filter Area: 0.055 mm² 0.055 mm²Type of Report: III

Sample Number	Sample Identification	Air Volume (liter)	Fibers Counted (liter)	Fields Counted (fields)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ²)	(Optional) Fiber Concentration (fibers/liter)	Fiber Concentration (fibers/cc)	(Optional) Upper 95% Confidence Limit (fibers/cc)
1	1100960	CHM 1001-00	1225	2 1/2	100	0.025	12000	10.002	
2									
3	Recount	1100960	1225	2	100	0.02	12000	10.002	
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
Blank Average:		..	..	0	100	..	..	..	..
Detection Limit:		..	..	..	..	0.04	5	(2.000) 4.000	..

QC reviewed by:

Date:

Form PCM 008 (2/26/90)

Chart: OHM
Batch No.: B1CC2C1842
Project No.: Method: NOM 7400 Date: 10/21/90
Filter Size: 25 mm Filter Area: 625 mm²Microscope: PFL
Field Area (mm²/field): 0.00254 Microscope: Leitz ErgoLog In Date: 10/21/90
Date Analyzed: 10/21/90Effective Filter Area: 3.14 mm² Effective Concentration: 833 mm⁻²
Concentration: 0.001 (ppm) Concentration: 0.001 (ppm)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Type of Report:	Sample Number	Sample Identifier	No. Volumes (ml)	Fiber Count (Count/mm ²)	Blot Connected Fiber Count (Count/mm ²)	Fiber Density (mm ⁻²)	(Optimal) Fiber Concentration (ppm)	(Optimal) Fiber Concentration (ppm)	(Upper 95% Confidence Limit)
	1140561	SMW-1001-2	1023	122	100	0.015	≤5	≤2000	≤0.002
	21140562		-3	1192	2	100	0.02	≤5	≤0.002
	31140563		-14	1158	4	100	0.04	≤5	≤0.002
	41140564		-5	1394	3	100	0.03	≤5	≤0.001
	51140565		-7	1320	6	100	0.06	≤8	≤0.001
	61140566		-8	1386	12	100	0.015	≤5	≤0.001
	71140567	BLANK	-	0	100	0.00	≤5	≤2000	≤0.001
	8		-	-	-	-	-	-	-
	9		-	-	-	-	-	-	-
	10		-	-	-	-	-	-	-
	11		-	-	-	-	-	-	-
	12		-	-	-	-	-	-	-
	13		-	-	-	-	-	-	-
	14		-	-	-	-	-	-	-
	15		-	-	-	-	-	-	-
Blot Average:			..	100	..	..	..	..	..
Duration (min.):			..	004	5	20000	40000	..	..

Last Revised and By: JL Date: 10/21/90
Form PCM 008 (2/26/90)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Microscope: E. J. I.

Date Analyzed: 10/11/1990

Chart: CHM

Batch No.: 80 B100301951

Project No.: 97 CRM 1928-56

Method: MOSU 2400 Rate: A Day

Filter Size: 25mm² Glass SlidesEffective Filter Area: 100 mm² Effective Area

Type of Report: II

Sample Number	Sample Description	Filter Volume (ml)	Fiber Count (per ml)	Concentrated Fiber Count (per ml)	Fiber Density (PhaseContrast)	(Optical) Fiber Concentration (PhaseContrast)	Filter Area (mm ²)	Filter Area (mm^{2})	Filter Area (mm^{2})	Filter Area (mm^{2})
1 141022	0.0010-02-10-1	1315	16	100	0.16	20.	2800	0.0059	0.0051	
2 141023		-2	1424	242	100	0.025	45	42000	<0.001	
3 141024		-3	1364	2.	100	0.02	45	42000	<0.001	
4 141025		-4	1383	3	100	0.03	45	42000	<0.001	
5 141026		-5	1419	52	100	0.055	7	3200	0.002	
6 141027		-6	1397	3	100	0.03	45	42000	<0.001	
7 141028		-7	1245	242	100	0.025	45	42000	<0.001	
8	Percent	141022	1315	15	100	0.15	19	7400	0.0056	
9										
10										
11										
12										
13										
14										
15										
16										
Black Average:										
Detection limit:										
0.04		5	2,000,000	4,000,000						

W.R. Revised by: D.P.

Date: 10/12/1990
1000 PCM 000 (2/26/90)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chart: CHM
 Batch No.: B100401858
 Project No.: 31204.00

Method: PCM 1926.5Y Rules: A

Microscope: BFL

Field Area (mm^2/Field): 0.007854

Filter Size: 25 mm² 37 mm²

DRAFT OCT 13 1990
 16-45(A)

Log In Date: 10/11/90

Date Analyzed: 10/14/90

Microscopist: Prayag Chaudhari

Effective Filter Area: 385 mm² 655 mm²

Type of Report: IR

Sample Number	Sample Identification	As Volume (mls)	Fibers Counted (Fiber)	Fields Counted (Fields)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ²)	(Optimum) Fiber Concentration (fibers/field)	Fiber Concentration (fibers/mlc)	(Optimum) Upper 95% Confidence Limit (fibers/mlc)
1	<u>141094</u>	<u>CHM.1003-19</u>	<u>1183</u>	<u>8</u>	<u>100</u>	<u>0.08</u>	<u>10</u>	<u>3900</u>	<u>0.0033</u>
2									
3	<u>Recount</u>	<u>141094</u>	<u>1183</u>	<u>9</u>	<u>100</u>	<u>0.09</u>	<u>11</u>	<u>4400</u>	<u>0.0037</u>
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
Blank Average:		..	..	..	..	..	..	..	..
Detection Lines:		..	..	..	..	..	..	..	..
					0.04	5	2,000 ¹⁴ 4,000 ¹⁴		

QC Reviewed by:

JRS

Date: 10/12/90
 Form PCM 008 (2/26/90)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chart: CHMBatch No.: B100501875Project No.: 31204-00Method: OPM 1926-SR Rate: ~~4000~~Field Size: 25 mm², 37 mm²Microscope: R.L.Log in Date: 10/11/90
Date Analyzed: 10/15/90Microscope: Hewlett PackardEffective Field Area: 365 mm², 53 mm²Type of Report: IR

Sample Number	Sample Volume (ml)	A		B		C		(Optical) Film Concentration (Conc.)	Concentration (Conc.)	Concentration Confidence Interval (Conc.)
		Al	Fiber Count (Fiber/ml)	Blank	Corrected Fiber Count (Fiber/ml)	Fiber Density				
1 <u>141325</u>	<u>0.001-0.04-1A</u>	<u>120.5</u>	<u>11</u>	<u>100</u>	<u>0.11</u>	<u>14</u>	<u>5400</u>	<u>0.0045</u>		
2 <u>141332</u>	<u>0.001-0.04-1B</u>	<u>101.3</u>	<u>9 1/2</u>	<u>100</u>	<u>0.095</u>	<u>12</u>	<u>4700</u>	<u>0.0046</u>		
3										
4 Recut:	<u>CHM 141325</u>	<u>120.5</u>	<u>13</u>	<u>100</u>	<u>0.13</u>	<u>17</u>	<u>6400</u>	<u>0.0053</u>		
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
Blank Average:	..	..	0	101	..	..	..	..	..	..
Detection Limits:	..	..	..	0.04	5	2,000 ¹⁰	4,000 ¹⁰	..	..	..

By: Reviewed by: CHM Date: 10/13/90
Form PCM 008 (2/26/90)

B1 10-8511
15 15 1990

(2)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Client: OHM
Batch No.: B100501875
Project No.: _____

Microscope: BSL

Log In Date: 1015190
Date Analyzed: 1015190

Method: AIASH 7400 Rate: A

Field Area (mm²/field): 0.007854Microscopic: NegativeFiber Size: 26 mm² ~~37 mm²~~Effective Filter Area: 385 mm² ~~855 mm²~~

Type of Report: II

Sample Number	Sample Identification	^a Air Volume (mls)	Fibers Counted (mls)	Fields Counted (fields)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ²)	(Optional) Fiber Concentration (fibers/ftc)	^c Fiber Concentration (fibers/ftc)	(Optional) Upper 95% Confidence Limit (fibers/ftc)
1 141326	OHM-10C4-2	1230	342	100	0.035	45	22000	40.002	_____
2 141327	-4	1295	6	100	0.06	8	3000	0.002	_____
3 141328	-5	1183	1	100	0.01	25	22000	40.002	_____
4 141329	-6	1279	2	100	0.03	45	22000	40.002	_____
5 141330	-7	1282	5	100	0.05	6	2000	0.002	_____
6 141331	-8	1211	4	100	0.04	65	2000	0.002	_____
7 141333	BLANK	--	0	100	--	45	22000	--	_____
8									_____
9									_____
10									_____
11									_____
12									_____
13									_____
14									_____
15									_____
Blank Average:		..	..	0	100	..	..	..	..
Detection Limits:		..	..	..	..	0.04	5	2,000 ftc 4,000 ftc	..

QC Reviewed By: *DY* Date: 10-15-90
Form: PCM 008 (2/26/90)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

B1Lb 2 J/10/81

①

Client: CLIMMicroscope: BALLog In Date: 9-10/18/81
Date Analyzed 10/17/80Batch No.: B'002801887Field Area (mm²/field): 0.007854Microscopic: Leitz ChamferProject No.: Effective Filter Area 345 mm² 855 mm²Method: ABM 1926-S8 Rate: 1000 Filter Size: 25mmType of Report: II

Sample Number	Sample Name	Al Volume (ml)	Fiber Count (mm ²)	Fields Counted (mm ²)	Direct Fiber Count (mm ²)	Fiber Density (mm ⁻²)	(Optimum Filter Concentration (mm ⁻²))	(Optimum Upper 95% Fiber Concentration Confidence Limit (mm ⁻²))
1	<u>141162</u>	<u>0.001605-10-1</u>	<u>1260</u>	<u>7</u>	<u>100</u>	<u>0.01</u>	<u>9</u>	<u>3000</u>
2								
3 Recount	<u>141162</u>	<u>1260</u>	<u>1</u>	<u>100</u>	<u>0.01</u>	<u>9</u>	<u>3000</u>	<u>0.002</u>
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
Blank Average:	..	..	..	0	100	..	..	..
Detection Lmts:	..	..	..	004	5	<u>(2,000m⁻²)</u> <u>4,000m⁻²</u>	..	..

QC Reviewed By: CJWDate: 10/15/80

Form PCM 008 (2/26/90)

B.I.L. I.R.N. - 151990 (2)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chrm: CHMBatch No.: B100401858

Project No.: _____

Method: NIOSH 7400 Date: 10/12/90Microscope: R. b.L.Field Area (mm²/field): 0.007854Filter Size: 25 mm² Name: 27 mm²Log In Date: 10/14/1990
Date Analyzed: 10/12/1990Microscopist: Shrey ChatterjiEffective Filter Area: 345 mm² 0.007854 mm²

Type of Report: <u>IR</u>	Sample Number	Repetitive Number	Volume (ml)	Filter Count (mm ²)	Blank Count (mm ²)	Concentrated Fiber Count (mm ²)	Fiber Density (fibers/mm ²)	(Optimum Fiber Concentration) Concentration (fibers/ml)	(Optimum Upper 95% Confidence Limit) Fiber Concentration (fibers/ml)
1	<u>141095</u>	<u>SH01003-2</u>	<u>1130</u>	<u>4</u>	<u>100</u>	<u>0.04</u>	<u>0.5</u>	<u>0.2000</u>	<u>0.002</u>
2	<u>141096</u>	<u>T-3</u>	<u>1338</u>	<u>3</u>	<u>100</u>	<u>0.03</u>	<u>0.5</u>	<u>0.2000</u>	<u>0.001</u>
3	<u>141097</u>	<u>-4</u>	<u>1200</u>	<u>4</u>	<u>100</u>	<u>0.045</u>	<u>5</u>	<u>0.2000</u>	<u>0.002</u>
4	<u>141098</u>	<u>-5</u>	<u>1366</u>	<u>2</u>	<u>100</u>	<u>0.02</u>	<u>0.5</u>	<u>0.2000</u>	<u>0.001</u>
5	<u>141099</u>	<u>-6</u>	<u>1195</u>	<u>1</u>	<u>100</u>	<u>0.01</u>	<u>0.5</u>	<u>0.2000</u>	<u>0.002</u>
6	<u>141100</u>	<u>-7</u>	<u>1072</u>	<u>2</u>	<u>100</u>	<u>0.02</u>	<u>0.5</u>	<u>0.2000</u>	<u>0.002</u>
7	<u>141101</u>	<u>-8</u>	<u>1063</u>	<u>0</u>	<u>100</u>	<u>0.00</u>	<u>0.5</u>	<u>0.2000</u>	<u>0.002</u>
8	<u>141102</u>	<u>-9</u>	<u>100</u>	<u>0</u>	<u>100</u>	<u>0.00</u>	<u>0.5</u>	<u>0.2000</u>	<u>0.002</u>
9	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—
11	—	—	—	—	—	—	—	—	—
12	—	—	—	—	—	—	—	—	—
13	—	—	—	—	—	—	—	—	—
14	—	—	—	—	—	—	—	—	—
15	—	—	—	—	—	—	—	—	—
Blank Average:	..	..	..	6	100	..	..	..	..
Detection Limes:	..	..	..	0.04	5	<u>2,000</u> <u>4,000</u>	..	..	..

QC Reviewed By: Off Date: 10/15/90

Form PCM 008 (2/26/90)

ABD 002 0560

MDE 0004066

BILLED OCT 15 1990

(2)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Client: O.H.M.
Batch No.: B100501R87
Project No.: _____

Microscope: BFL

Log In Date: 10/15/90

Date Analyzed: 10/15/90

Field Area (mm²/field): 0.007854

Microscopist: Ranjy Chandher

Method: NIOSH 7400 Rate: A

Fiber Size: 25 mm² 37 mm²Effective Filter Area: 305 mm² 855 mm²

Type of Report: III

Sample Number	Sample Identification	As Volume (mls)	Fibers Counted (mls)	Fields Counted (fields)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ²)	(Optional) Filter Concentration (fibers/ml)	Fiber Concentration (fibers/ml)	(Optional) Upper 95% Confidence Limit (fibers/ml)
1 141463	OHM-10.05.90.2	1304	3	100	0.03	25	<2000	0.002	_____
2 141464	-3	1350	4	100	0.04	5	2000	0.001	_____
3 141465	-8	1174	3	100	0.03	25	<2000	0.002	_____
4 141466	-5	1203	3	100	0.03	25	<2000	0.002	_____
5 141467	-6	1205	5	100	0.05	6	2000	0.002	_____
6 141468	-7	1160	2	100	0.02	25	<2000	0.002	_____
7 141469	BLANK	--	0	100	--	25	<2000	0--	_____
8									_____
9									_____
10									_____
11									_____
12									_____
13									_____
14									_____
15									_____
Blank Average:	..	..	0	100	..	..	..	..	..
Detection Lims:	..	..	..	..	0.04	5	2,000 ^{±4} 4,000 ^{±4}	..	..

QC Reviewed By: CLY

Date: 10/15/90
Form PCM 008 (2/26/90)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

(1)

Client: CHM
 Batch No.: B100701895
 Project No.: 31204.00

Microscope: B-9 L

Log In Date: 10/19/90
 Date Analyzed: 10/21/90

Method: ORM 1926.58 Date: 10/19/90

Field Area (mm^2/field): 0.0017854

Microscoper: Haney Chaudhuri

Fiber Size: 25 μm 37 μm

Effective Filter Area 385 μm^2 555 μm^2

Type of Report: II

Sample Number	Sample Identification	As Volume (ml)	α	Fibers Counted (field)	Blank Corrected Fiber Count (fibers/field)	Fiber Density ($\text{fibers}/\text{mm}^2$)	(Estimated) Fiber Concentration (fibers/mm ³)	Fiber Concentration (fibers/cc)	(Estimated) Upper 95% Confidence Limit (fibers/cc)
1	<u>141502</u>	<u>0117-108-8</u>	<u>.792</u>	<u>6</u>	<u>100</u>	<u>0.06</u>	<u>8</u>	<u>0.0004</u>	
2									
3	<u>Resound</u>	<u>141502</u>	<u>.792</u>	<u>7</u>	<u>100</u>	<u>0.07</u>	<u>9</u>	<u>0.0004</u>	
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
Blank Average:		..	..	5	100	..	..	..	..
Detection Limits		..	..	..	..	0.04	5	<u>2.000E+0</u> <u>4.000E+0</u>	..

QC Reviewed By: CIV

Date: 10/16/90
 Form PCM 008 (2/26/90)

ABD 002 0564

(1)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Client: OHM
 Batch No.: B101001902
 Project No.: 31204.00

Microscope: P.I.Field Area (mm²/field): 0.0107834Log In Date: 10/16/90Date Analyzed: 10/16/90Method: OPM 1926-S8 Rules: A-BFilter Size: 25 mm² (25 mm²) 37 mm² (37 mm²)Effective Filter Area: 395 mm² (395 mm²) 655 mm² (655 mm²)Type of Report: III

Sample Number	Sample Identification	As Volume (mls)	Fibers Counted (Total)	Fields Counted (Total)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ²)	(Optional) Fiber Concentration (fibers/ml)	Fiber Concentration (fibers/cc)	(Optional) Upper 95% Confidence Limit (fibers/cc)
1 <u>141513</u>	<u>OHM-1009-10A</u>	<u>370</u>	<u>18</u>	<u>100</u>	<u>0.18</u>	<u>23</u>	<u>8800</u>	<u>0.024</u>	
2									
3 <u>Recall</u>	<u>141513</u>	<u>370</u>	<u>18.2</u>	<u>100</u>	<u>0.185</u>	<u>24</u>	<u>9100</u>	<u>0.025</u>	
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
<u>Blank Average:</u>									
<u>Detection Limits:</u>									
0.04 5 <u>2,000</u> <small>(4,000)</small>									

(X) Reviewed By:

OJY

Date: 10/16/90
Form PCM 008 (2/26/90)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

ABD 002 0565

(2)

Class: O.H.M.Microscope: B.A.I.Log in date: 10/15/95Date Analyzed: 10/16/95Batch No.: B101001902Field Area (m²/lot): 0.007854Microscope: Long ey SquaredProject No.: 31204-00Effective Fiber Area: 0.00055 m²Method: NIOSH 7400 Rate: A Fiber Size: 25 μm - 31 μmType of Report: III

Sample Number	Sample Volume (ml)	No. of Counts	Field Count (approx.)	Concentrated (approx.)	Fiber Density (approx.)	Optimum Fiber Concentration (approx.)	Estimated Upper and Lower Limit Concentration (approx.)	
							Part A	Part B
1 M1505	0.001009-2	1284	2	100	0.02	45	42000	<0.002
2 M1506	-3	1150	2	100	0.02	45	42000	<0.002
3 M1507	-4	1196	1	100	0.01	45	42000	<0.002
4 M1508	-5	1196	4	100	0.04	5	2000	0.002
5 M1509	-6	1250	100	0.025	45	42000	<0.002	
6 M1510	-7	1175	4	100	0.04	5	2000	<0.002
7 M1511	-8	580	2	100	0.02	45	42000	<0.003
8 M1512	-9	546	7	100	0.07	9	3000	0.006
9 M1513	-9	546	7	100	0.07	9	3000	0.006
10	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-
Blanks Average:	-	-	6	100	-	-	-	-
Detection limits	-	-	0.04	5	<2.0000	4.0000	-	-

QC Reviewed by: CHDate: 10/16/95

Form ICM 008 (2/26/90)

ABD 002 0566

(2)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chart: O. H. M.

Microscope: BSL

Log In Date: 10/15/96

Date Analyzed: 10/16/96

Batch No.: R10101902

Microscopist: Ranjay Choudhury

Project No.: 3120400

Field Area (mm²/mm): 0.007854Effective Fiber Area: 0.007854 mm²

Method: NIOSH 7400 Rate: A/B

Fiber Size: 25 micrometer

Type of Report: II

Sample Number	Location	No. of Fibers	Fiber Count (mm ⁻²)	Concentration (fibers/mm ²)	Fiber Density (fibers/mm ³)	Optical Fiber Concentration (fibers/mm ³)	Estimated Fiber Concentration (fibers/mm ³)	Potential Concentration (fibers/mm ³)
1 M1505	OMR1009-2	1284	2	100	0.02	15	2000	0.002
2 M1506	T-3	1150	2	100	0.02	15	2000	0.002
3 M1507	-4	1296	1	100	0.01	15	2000	0.002
4 M1508	-5	1196	4	100	0.04	5	2000	0.002
5 M1509	-6	1250	100	0.025	15	2000	0.002	
6 M1510	-7	1175	4	100	0.04	5	2000	0.002
7 M1511	-8	580	2	100	0.02	15	2000	0.002
8 M1512	-9	546	1	100	0.01	1	3000	0.003
9 M1513	-8	110	0	100	0.00	15	2000	0.002
10								
11								
12								
13								
14								
15								
Blank Average:		6	100	..	..	..	..	..
Detection limits		..	0.04	5	(2 fibers 4,000m ³)	..	..	..

QC: Reviewed by:

CJL

Date: 10/16/96
Inch ICM 000 (2/2039)

Clayton
Environmental

10-884 ABD 002 0567 (1)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chart: OHM
 Batch No.: B101101917
 Project No.: 31204-00

Method: OPC '726-58 Rate: 2000 fibers/min

Filter Size: 25 mm² area 37-mm² Effective Filter Area: 355 mm² area 855 mm²

Log in Date: 10/17/90
 Date Analyzed: 10/17/90

Microscopist: Henry Gaudette

Sample Number	Sample Identification	Volume (ml)	Flow (ml/min)	Fields Counted (Number)	Blank Fiber Count (Microscopic)	Corrected Fiber Count (Microscopic)	Optimum Fiber Concentration (Microscopic)		Upper 85% Concentration (Microscopic)	Optimum Concentration (Microscopic)
							Concentration (Microscopic)	Concentration (Microscopic)		
1 <u>141601</u>	<u>glut-100-A</u>	<u>960</u>	<u>16</u>	<u>100</u>	<u>0.16</u>	<u>2.0</u>	<u>7800</u>	<u>0.0082</u>	<u>-</u>	<u>-</u>
2										
3 Percent	<u>141601</u>	<u>360</u>	<u>18½</u>	<u>100</u>	<u>0.185</u>	<u>24</u>	<u>9100</u>	<u>0.0075</u>	<u>-</u>	<u>-</u>
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
Blank Average:	..	..	2	100	..	..	..	..	..	..
Detection Limits:	..	..	..	..	0.04	5	2,000	4,000	..	..

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

(D-834) (2)

Chart:

OHM

Microscope:

B.L.

Log In Date:

10/11/90

Date Analyzed:

10/16/90

Batch No.:

B10101917

Project No.:

31201100

Method: NIOSH 2400

Filter:

Filter Size:

25 mm

Filter Area:

31.41 mm²

Effective Fiber Area:

31.41 mm²

Type of Report: IR

Sample Number	Date	Volume (ml)	Conc. (mg/ml)	Fiber Count (per ml)	Concen. (mg/ml)	Optical Fiber Concentration (mg/ml)	Estimated Fiber Concentration (mg/ml)	Estimated Fiber Concentration (mg/ml)
1 141602	10/10/90	2	1305	5	100	0.05	6	0.002
2 141603		-3	1375	15	100	0.15	19	0.005
3 141604		-4	1253	3	100	0.03	25	0.002
4 141605		-5	1262	2	100	0.02	25	0.002
5 141606		-6	118	14	100	0.05	15	0.002
6 141607		-7	1193	1	100	0.01	15	0.002
7 141608		-8	1243	3	100	0.03	25	0.002
8 141609		-9	125	15	100	0.015	25	0.002
9 141610		-10	100	6	100	0.00	25	0.002
11								
12								
13								
14								
15								
Blank Average:		2	100	..	..	..	..	..
Detection limits:		..	..	004	5	2 (mm)	..	..

QC Reviewed By: *[Signature]* Date: 10/17/90

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chart: CRM

Microscope: P. 2.1

Log In Date: 10/10/1997

Date Analyzed: 10/10/1997

Batch No.: B101201918

Microscope: Leitz (Champlain)

Batch 102658 Date: 10/10/97

Fiber Size: 0.001" - 0.003"

Elective Fiber Area (105 mm²) 105 mm²

Type of Report: IR

Sample	Date	Field	Conc.	Fiber	Filter	Concentration	Filter	Sampling
	(mm)	(mm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	Upper Limit
1	10/10/97	1/2	100	0.075	10.	3700	0.0086	
2								
3	10/10/97	1/2	100	0.072	9	3000	0.0088	
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
Blank Average:								
Detection Limit:				0.04	5	2,000 ppm	4,000 ppm	

Clayton
Environmental

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

11/11/11 ABD 002 0570 (2)

Chart:

O.V.M

Microscope:

C.L.

Log In Date:

11/11/11

Date Analyzed:

11/11/11

Batch No.:

B1012010118

Project No.:

31244

Field Area (m²/ft²):

0.007851

Batch:

Y10117400

Fiber Size:

25 μm

Effective Fiber Area (mm²):

165 mm²

Monitored:

None

Type of Report: in

Sample	Date	No.	Field	Counted Fiber Count (Fiber Density)	Fiber Density (Fiber/mm²)	Total Fiber Concentration (Fiber/mm³)	Fiber Concentration (Fiber/mm³)	Estimated Concentration (Fiber/mm³)
1 141655	Open-poly-2	1301	6½	100	0.065	8	3000	0.0002
2 141656		-3	1336	13	100	0.13	11	6400
3 141657		-4	1150	4	100	0.04	5	20000
4 141658		-5	1153	1	100	0.01	5	120000
5 141659		-6	1150	3	100	0.03	5	120000
6 141660		-7	1150	12	100	0.05	5	120000
7 141661		-8	1155	2	100	0.02	5	120000
8 141662		9	1215	3	100	0.03	5	120000
9								
10								
11								
12								
13								
14								
15								
Blanks Average:								
Detection limits:				0.04	5	20000		

(U) Reviewed by: J. H. L. Date: 11/11/11

BILLED 11-8-12 ABD 002 0571
JUL 22 1990

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Client: OHM
Batch No.: B101501936.
Project No.: 31204-00

Microscope: B+L

Log In Date: 10/15/90
Date Analyzed: 10/17/90

Method: NIOSH 7400 Rate: 0.00000

Field Area (mm²/field): 0.007854

Microscopist: Ranjay Chaudhuri

Filter Size: 25 mm² 37 mm²Effective Filter Area: 20.5 mm² 25.5 mm²

Type of Report: II

Sample Number	Sample Description	a N Volume (mls)	a		Block Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ³)	(Optimum) Fiber Concentration (fibers/ml)	c		(Optimum) Upper 95% Confidence Limit (fibers/ml)
			Flame Corrected (mls)	Fields Corrected (field)				Fiber Concentration (mls/ml)	Fiber Concentration (mls/ml)	
1 141751	OHM-10-12-1	1838	3 1/2	100	0.035	<5	≤2000	≤0.001	—	—
2 141752	-2	1508	1	100	0.01	<5	≤2000	≤0.001	—	—
3 141753	-3	648	2	100	0.00	<5	≤2000	≤0.003	—	—
4 141754	-4	1217	2	100	0.02	<5	≤2000	≤0.002	—	—
5 141755	-5	1414	2	100	0.02	<5	≤2000	≤0.001	—	—
6 141756	-6	1403	1/2	100	0.005	<5	≤2000	≤0.001	—	—
7 141757	-7	588	1	100	0.01	<5	≤2000	≤0.003	—	—
8 141758	-BLANK	—	0	100	--	<5	≤2000	—	—	—
9										
10										
11										
12										
13										
14										
15										
Blank Average:	..	..	0	100	..	..	..	..	..	..
Detection Lmts:	..	..	..	..	0.04	5	2,000 ¹⁴ 4,000 ¹⁴	..	..	..

11/15/85

ABD 002 0572

Clayton

Chart: OVM
 Batch No.: B1C1C01942
 Project No.: 31204 00

Method: NICM 7400 Rate: 1000 Fiber Size: 25 μm² Plane

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Microscope: N.S.I.Log In Date: 11/15/85
Date Analyzed: 11/15/85Field Area (mm²/field): 0.001854Microscope: Nicely Cleaned
Effective Fiber Area (mm^2): 3.65Type of Report: II

Sample Number	Sample Name	Area (mm ²)	All Fields		Concentrated (mm ²)	Fiber Density (fibers/mm ²)	Concentration (fibers/mm ²)	Fiber Concentration (fibers/mm ²)	Fiber Count (fibers/mm ²)
			Counted (mm ²)	Counted (mm ²)					
1	111284	1.001854	1350	4	100	0.04	5	20.00	0.001
2	111285	—	1326	4	100	0.04	5	20.00	0.002
3	111286	—	1429	5	100	0.05	6	20.00	0.001
4	111287	—	1213	1	100	0.01	1	2.00	0.002
5	111288	—	932	3	100	0.03	15	2.00	0.002
6	111289	—	1225	2	100	0.02	15	2.00	0.002
7	111290	—	1215	3	100	0.03	15	2.00	0.002
8	111291	—	8	—	100	—	—	2.00	—
9	111292	—	—	—	100	—	—	2.00	—
10	111293	—	—	—	100	—	—	2.00	—
11	111294	—	—	—	100	—	—	2.00	—
12	—	—	—	—	100	—	—	2.00	—
13	—	—	—	—	100	—	—	2.00	—
14	—	—	—	—	100	—	—	2.00	—
15	—	—	—	—	100	—	—	2.00	—
Blk Average:	—	—	—	—	100	—	—	2.00	—
Detention times:	—	—	0.04	5	2.00	4.000	—	—	—

(U) Revised By: C.R.C. Date: 10/15/1985 1 mm PCM (2126MM)

1000

11.45.10

1000

11.45.10

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Client: C.H.M.

Microscope: N.A. 1

Log In Date: 10/17/10

Batch No.: B1017019119

Date Analyzed: 10/17/10

Project No.: T125400

Microscopist: Sanjay Chaudhuri

Method: QPM 1926 S8 Date: 10/17/10

Filter Size: 25 mm² 37 mm²Effective Filter Area: 305 mm² 355 mm²

Type of Report: II

Sample Number	Sample Identification	Air Volume (mls)	Fibers Counted (mls)	Fields Counted (fields)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ²)	(Optional) Fiber Concentration (fibers/ft ³)	(Optional) Fiber Concentration (fibers/oz)	(Optional) Upper 95% Confidence Limit (fibers/oz)
1	141RC12	0.01M 10-16-10	1458	16	100	0.16	20.	7500	0.0053
2									
3	Recent	0.01M 10-16-10	1458	15	100	0.15	17	7100	0.0051
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
Blank Average:		..	..	0	100	..	..	..	..
Detection Limit:		..	..	..	0.04	5	2,000 ft ³ 4,000 oz	..	..

(QC Reviewed By:

CCV

Date: 10/17/10
Form PCM 008 (2/26/00)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE (CONTINUED) MICROSCOPIC COUNT

Class: C. 11 M
Section No.: BK117C1919
Project No.: 31200100

Microscope: _____

Microscopic: Large luminescent

Type of Report	Sample Number	Sample Date	No. of Cells	Mean Cell Volume	Median Cell Volume	Range (Cell Volume)	Concentration (Cells/ml)	Fiber Concentration (mg/ml)	Concentration (mg/ml)	Estimated Total Concentration (mg/ml)
1	111803	10/11/2	1619	2	100	0.52	15	2000	50,000	100,000
2	111804	-	-	1586	242	100	0.025	15	2000	40,000
3	111805	-	-	1382	3	100	0.03	15	2000	30,000
4	111806	-	-	1158	1	100	0.01	15	2000	20,000
5	111807	-	-	1163	1	100	0.005	15	2000	10,000
6	111808	-	-	1484	3	100	0.03	15	2000	60,000
7	111809	-	-	1121	2	100	0.02	15	2000	40,000
8	111810	-	-	102	0	100	0.02	15	2000	20,000
9	111811	-	-	100	0	100	0.02	15	2000	20,000
10	111812	-	-	100	0	100	0.02	15	2000	20,000
11	111813	-	-	100	0	100	0.02	15	2000	20,000
12	111814	-	-	100	0	100	0.02	15	2000	20,000
13	111815	-	-	100	0	100	0.02	15	2000	20,000
14	111816	-	-	100	0	100	0.02	15	2000	20,000
15	111817	-	-	100	0	100	0.02	15	2000	20,000
Blanks Average			0	100	..	..	..	..	..	..
Detection limits			0.04	5	(2,000)	4,000				

ABD 002 0574

MDE 000407

10/14/90

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chart: OHM
Batch No.: B101801955
Project No.: 31204.00Microscope: B3LLog In Date: 10/18/90
Date Analyzed: 10/19/90Method: 1926.58 (PCM) Rate: 0.0Field Area (mm^2/field): 0.007854Microscopist: Sanjay ChaudhuriFilter Size: 25 mm² 37 mm²Effective Filter Area: 25 mm² 555 mm²Type of Report: III

Sample Number	Sample Identification	At Volume (mls)	a Fibers Counted (mls)	Fields Counted (fields)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ²)	(Optional) Fiber Concentration (fibers/ml)	e Fiber Concentration (fibers/cc)	(Optional) Upper 95% Confidence Limit (fibers/cc)
1	<u>141900</u>	<u>OHM 10-17-1</u>	<u>1136</u>	<u>29</u>	<u>100</u>	<u>0.29</u>	<u>37</u>	<u>14,000</u>	<u>0.013</u>
2									
3	<u>Recount:</u>	<u>141900</u>	<u>1136</u>	<u>32</u>	<u>100</u>	<u>0.32</u>	<u>41</u>	<u>16,000</u>	<u>0.014</u>
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
Blank Average:		..	..	c	100	..	..	..	..
Detection Limit:		..	..	..	..	0.04	s	2,000 MP 4,000 m	..

(IC) Reviewed By:

OJY

Date: 10/14/90
Form PCM 008 (2/26/90)

16-#4977 (Loc 8)
10.30

(2)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Client: OHM
Batch No.: B101801955
Project No.: 31204.00

Microscope: B & L

Log In Date: 10/18/91
Date Analyzed: 10/19/91

Method: NIOSH 7400 Rate: A

Field Area (mm²/field): 0.007854

Microscopist: Sanjay Chaudhary

Filter Size: 25 mm²
(mm²/field)Effective Filter Area: 385 mm²
(mm²/field) 0.55 mm²
(mm²)

Type of Report: III

Sample Number	Sample Identification	Air Volume (liter)	Fibers Counted (liter)	Fields Counted (fields)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ²)	(Optional) Filter Concentration (fibers/liter)	Fiber Concentration (fibers/lcc)	(Optional) Upper 95% Confidence Limit (fibers/lcc)
1 141901	OHM-10-17-2	950	23	100	0.23	29	11,000	0.012	
2 141902	-3	955	17	100	0.17	22	8300	0.0087	
3 141903	-4	953	23	100	0.23	29	11,000	0.012	
4 141904	-5	950	15	100	0.15	19	7400	0.0078	
5 141905	-6	1095	2	100	0.02	CS	<2000	<0.002	
6 141906	-7	1163	3	100	0.03	CS	<2000	<0.002	
7 141907	BLANK	--	0	100	--	CS	<2000	--	
8									
9									
10									
11									
12									
13									
14									
15									
Blank Average:	..	..	0	100	..	..	..	..	..
Detection Limits:	0.04	5	2,000 4,000

QC Reviewed By:

Date: 10/19/91
Form PCM 008 (2/26/90)

BILLED 10-8-91
10-26-90

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WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chart: 011 M
 Batch No.: B101901967
 Project No.: 31204-01

Microscope: R11

Log In Date: 10/19/90
 Date Analyzed: 10/25/90

Method: PCM 1926-58 Rate: A 0Field Area (mm^2/field): 0.007854Microscopist: Sanjay ChaudharyFilter Size: 25 mm² 37 mm²Effective Filter Area: 0.055 mm² 0.055 mm²Type of Report: II

Sample Number	Sample Identification	Air Volume (liter)	Fibers Counted (liter)	Fields Counted (field)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ²)	(Optional) Fiber Concentration (liter/liter)	(Optional) Fiber Concentration (liter/liter)	(Optional) Upper 95% Confidence Limit (fibers/liter)
1	1111981	016M 10-18-1A	1370	17	100	0.17	22	8300	0.0061
2									
3	Recount	1414981	1370	18	100	0.18	23	8800	0.0064
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
<hr/>									
Blank Average:									
Detection Limits: 0.04 5 2.00E+04 4.00E+04									

QC Reviewed By:

OJY

Date: 10/25/90
Form PCM 008 (2/26/90)

10 - NW 41

B I L L J 1991

(2)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Client: CILM
 Batch No.: B101901967
 Project No.: 31204-00

Microscope: BAL
 Field Area (mm^2/field): 0.057854

Log In Date: 10/19/90
 Date Analyzed: 10/22/90

Method: NIOSH 7400 Rate: 0.000000

Filter Size: 25 mm² 37 mm²

Microscopist: Sanjay Chaudhary
 Effective Filter Area: 0.05 mm² 0.05 mm²

Type of Report: III

Sample Number	Sample Identification	lit Air Volume (ml/mg)	Fibers Counted (mg/mg)	Fields Covered (field)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ²)	(Optional) Fiber Concentration (fiber/mm ²)	Fiber Concentration (fiber/sec)	(Optional) Upper 95% Confidence Limit (fibers/sec)
1	1011952	011M-10-18-2	1438	3	100	0.03	22000	40.001	
2	1011951	-3	1400	3/2	100	0.035	22000	40.001	
3	1011951	-4	1296	30	100	0.30	15,000	0.018	
4	1011955	-5	1374	24	100	0.24	12,000	0.0085	
5	1011956	-6	1169	16	100	0.16	7800	0.0057	
6	1011957	-7	1334	5	100	0.05	2000	0.0004	0.002
7	1011958	BLANK	--	0	100	0.00	22000	--	
8									
9									
10									
11									
12									
13									
14									
15									
Blank Average:		..	..	0	192	..	..	..	..
Detection Limits:		..	..	..	..	0.04	5	2.50004 4.0000	..

QC Reviewed By: EJY

Date: 10/25/90
 Form PCM 008 (2/26/90)

(U) NAVFAC
BILLED OCT 23 1990

ABD 002 0579

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

MDE 000408

Chart: O.H.M.Microscope: R 4LLog In Date: 10/22/90Batch No.: B102201978Date Analyzed: 10/23/90Project No.: 31204 009th ORP# 1986.58Method: NIOSH 7400 Rate: AField Area (mm^2/hole): 0.007854Microscopist: Sanjay ChaudhuriFilter Size: 25 mm² 37 mm²Effective Filter Area: 305 mm² 465 mm²Type of Report: III

Sample Number	Sample Identification	As Volume (ml)	a	Fibers Counted (Total)	Fields Observed (Total)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ³)	(Optical) Fiber Concentration (fibers/mm ³)	(Optical) Fiber Concentration (fibers/cc)	(Optical) Upper 95% Confidence Limit (fibers/cc)
1 142097	OHM 1019-1	1163	18	100	0.18	23	8800	0.0076		
2 142098	-2	1340	2	100	0.02	15	120000	10.001		
3 142099	-3	1280	6	100	0.06	8	3000	0.002		
4 142000	-4	1284	F	--	--	--	--	--		
5 142101	-5	1275	45	100	0.45	57	22,000	0.017		
6 142102	-6	1275	35	100	0.35	45	17,000	0.013		
7 142103	BLANK	--	0	100	--	15	120000	--		
8										
9 Recount	142097	1163	17	100	0.17	22	8300	0.0072		
10										
11										
12										
13										
14										
15										
Blank Average:	..	..	0	100	..	..		
Detection Limit:	..	..	..	..	0.04	5	2,000	4,000		

(U) Reviewed By:

CHDate: 10/23/90
Form PCM 008 (2/26/90)

BILLED OCT 25 1990 ABD 002 0580

(1)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Client: SI O.H.M.
Batch No.: B102201979
Project No.: 31204-00Microscope: R&LLog In Date: 10/22/90
Date Analyzed: 10/23/90Method: NIOSH 7400 Rate: 0.007854Field Area (mm^2/field): 0.007854Microscopist: Sonja ChaudhriFiber Size: 25 μm by 37 μm Effective Fiber Area 105 μm^2 by 65 μm^2 Type of Report: II

Sample Number	Sample Identification	Net Volume (ml)	Fibers Counted (Area)	Fields Counted (Fields)	Blank Corrected Fiber Count (fibers/field)	Fiber Density ($\text{fibers}/\text{mm}^2$)	(Optional) Fiber Concentration (fibers/ml)	(Optional) Fiber Concentration (fibers/cc)	(Optional) Upper 95% Confidence Limit (fibers/ml)
1 <u>142107</u>	<u>OHM-10-20-2</u>	<u>483</u>	<u>172</u>	<u>100</u>	<u>0.015</u>	<u>45</u>	<u>22000</u>	<u>20.004</u>	
2 <u>142108</u>	<u>-3</u>	<u>473</u>	<u>F</u>	<u>-</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	
3 <u>142109</u>	<u>-4</u>	<u>453</u>	<u>F</u>	<u>-</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	
4 <u>142111</u>	<u>BLANK2</u>	<u>--</u>	<u>0</u>	<u>100</u>	<u>--</u>	<u>45</u>	<u>22000</u>	<u>--</u>	
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
Blank Average:		..	..	0	100	..	..	..	..
Detection Limit:		..	..	..	..	0.04	5	<u>2,000 cc</u> <u>4,000 cc</u>	

(X) Reviewed By:

*XY*Date: 10/23/90
Form PCM 008 (2/26/90)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Count: O.H.M. Microscope: 84 L.
 Batch No.: B102201979 Project No.: 3120400

Date: 08/10/2026-58 Name - Author: Shreyas Chaudhari

Long. In Date: 10/12/19
 Date Analyzed LC/23/20

Microscope: Shreyas Chaudhari
 Effective Fiber Area: 185 mm² Total Area: 655 mm²

MDE CCC408E

Type of Report: 1B

Sample No.	Sample Description	Phase		Flame		Black		Corrected		Fiber Count (mm ⁻²)		Concentration (mm ⁻³)	Comments
		Wt.	Wt.	Counted	Counted	Flame	Density	Flame	Density	Flame	Density		
1	142110	0.001-10-20-5	47.0	E	E	—	—	—	—	—	—	—	—
2	—	—	—	—	—	—	—	—	—	—	—	—	—
3	—	—	—	—	—	—	—	—	—	—	—	—	—
4	—	—	—	—	—	—	—	—	—	—	—	—	—
5	—	—	—	—	—	—	—	—	—	—	—	—	—
6	—	—	—	—	—	—	—	—	—	—	—	—	—
7	—	—	—	—	—	—	—	—	—	—	—	—	—
8	—	—	—	—	—	—	—	—	—	—	—	—	—
9	—	—	—	—	—	—	—	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	—	—	—	—
11	—	—	—	—	—	—	—	—	—	—	—	—	—
12	—	—	—	—	—	—	—	—	—	—	—	—	—
13	—	—	—	—	—	—	—	—	—	—	—	—	—
14	—	—	—	—	—	—	—	—	—	—	—	—	—
15	—	—	—	—	—	—	—	—	—	—	—	—	—
16	—	—	—	—	—	—	—	—	—	—	—	—	—
Blank Average:	..	..	..	..	..	..	..	..	..	..	..	..	..
Detection Limit:	..	..	..	..	..	..	..	..	..	..	..	..	..

Date: 10/12/2026-58 Form PCM 008 (2/26/90)
 PC Reviewed by: Shreyas Chaudhari Date: 10/12/2026-58

Clayton

B I L L 11-8183
DUCT 30 1990 (1)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chart: O N.M.
 Batch No.: B102301987
 Project No.: 7120400
 Method: CFM 1426-58 Rate: 100

Microscope: P.Z.L.Field Area (mm^2/field): 0.007854Filter Size: 25 mm² 37 mm²Log In Date: 10/23/90Date Analyzed: 10/23/90Microscopist: Ranjan ChaudhuryEffective Filter Area: 165 mm² 265 mm²

Type of Report: III

Sample Number	Sample Identification	Air Volume (ml)	Fibers Counted (Total)	Fields Counted (Field)	Blank Corrected Fiber Count (Overlaid)	Fiber Density (fibers/mm ³)	(Optimum) Fiber Concentration (fibers/ml)	(Optimum) Fiber Concentration (fibers/cc)	(Optimum) Upper 95% Confidence Limit (fibers/cc)
1	141201	01/10-10-22-11	10411	F	--	--	--	--	--
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
Blank Average:		..	..	0	100	..	..	..	..
Detection Limits:		..	..	..	..	0.04	5	2,000	4,000

QC Reviewed By: JFFDate: 10/30/90
Form PCM 008 (2/26/90)

Clayton
Environmental
Consultants

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

B I L L E R U C K 3 873

Client: # O.H.M.

Batch No.: B102301987

Project No.: 31204-00

Microscope: B4L
Field Area (m²): 0.001854Method: M1000 Date: 12/18/87
Filter Size: 10 μmMicroscope: Slanting Chaudhary
Effective Filter Area: 0.001854 m²

Type of Report: 10

Sample	Volume	Area	Fiber Count	Concen. Per Unit Volume	Fiber Density (Number)	Optimum Filter Concentration (Number)		Optimum Filter Concentration (Number)	
						1	2	3	4
1 142202	0.00100	2.2	1084	7	100	0.01	9	3000	0.003
2 142203	—	—	—	—	—	—	—	140	0.0041
3 142204	—	—	—	—	—	—	—	2000	0.002
4 142205	—	—	—	—	—	—	—	2000	0.002
5 142206	—	—	—	—	—	—	—	2000	0.002
6 142207	—	—	—	—	—	—	—	2000	0.002
7 142208	—	—	—	—	—	—	—	2000	0.002
8 142209	—	—	—	—	—	—	—	2000	0.002
9 142210	—	—	—	—	—	—	—	2000	0.002
10 142211	—	—	—	—	—	—	—	2000	0.002
11 142212	—	—	—	—	—	—	—	2000	0.002
12 142213	—	—	—	—	—	—	—	2000	0.002
13 142214	—	—	—	—	—	—	—	2000	0.002
14 142215	—	—	—	—	—	—	—	2000	0.002
15 142216	—	—	—	—	—	—	—	2000	0.002
Black Average:	—	—	—	—	—	—	—	—	—
Detection limits:	—	—	—	—	—	—	—	—	—

4000

4000

(U) Reviewed by: *E.P.*

Date: 10/30/90

11-81100
MILE 7 BY 62 1990

ABD 002 0584

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Client: O.H.M.
 Batch No.: B102401996
 Project No.: 3204.00
 + OPM 1926.58
 Method: NIOSH 7400 Rate: 40/min

Microscope: P.L.Field Area (mm²/field): 0007854Filter Size: 27 mmLog In Date: 10/24/90Date Analyzed: 10/25/90Microscopist: Sanjay ChaudhariEffective Filter Area: 345 mm² 0.55 mm²Type of Report: III

Sample Number	Sample Identification	Net Volume (ml)	Fibers Counted (Total)	Fields Counted (Fields)	Blank Corrected Fiber Count (fibers/field)	Fiber Density (fibers/mm ²)	(Optical) Fiber Concentration (fibers/ml)	Fiber Concentration (fibers/cc)	(Statistical) Upper 95% Confidence Limit (fibers/cc)
1 142236	OHM-10-23-1	1145	5 d	100	0.05	6	2000	0.002	
2 142237	-2	1150	6	100	0.06	8	3000	0.003	
3 142238	-3	1150	8 d	100	0.08	10.	3900	0.0034	
4 142239	BLANK	--	0	100	--	5	<2000	--	
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
Blank Average:	..	..	600	100	..	..	..	..	..
Detection Limit:	..	..	..	..	0.04	5	2,000	4,000	..

QC Reviewed By: CGDate: 10/31/90
Form PCM 008 (2/26/90)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chem.

Batch No.: B102502C09
Printed On: 3/204.00

Method: CRM 1926 S2 Notes: E.A. P.

Microscope: L.H.C.

Log in Date: 10/33/80
Date Analyzed: 10/13/82

June 20th 1913

medieval: old times history

ABD 002 0585

MDE 000409

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

(P)

Client: O.H.M.

Microscope: B&L

Log In Date: 11/11/74

Date Analyzed: 11/11/74

Batch No.: B102502009

Microscope: Sliding Chuck

Reviewed By: Clayton Environmental Consultants

Project No.: 3120400

Effective Fiber Area: 165 mm²

Method: NIOSH 2000 Date: 10/11/74

Fiber Size: 25 micrometer

Type of Report: II

Sample Number	Length	Wt.	Area	Field Count	Concen. Per Sample	Blank Concen. (Percent)	Fiber Density (Percent)	Optical Fiber Concentration (Percent)		Positive Uptake (Percent)	Negative Uptake (Percent)
								Phase Contrast (Percent)	Phase Contrast (Percent)		
1 142293	0mm to 4.2	1080	12	100	0.12	15	0.11	0.1111	0.1111	—	—
2 142294	—3	1130	13	100	0.13	17	0.11	0.1111	0.1111	—	—
3 142295	-4	1119	1	100	0.01	15	0.01	0.0000	0.0000	—	—
4 142296	-5	1092	2	100	0.02	15	0.01	0.0000	0.0000	—	—
5 142297	-6	1113	1½	100	0.015	15	0.01	0.0000	0.0000	—	—
6 142298	-7	1075	100	0.01?	15	0.00	0.0000	0.0000	0.0000	—	—
7 142299	-8	2031	15	100	0.15	19	0.00	0.0036	0.0036	—	—
8 142300	—9	1511	19½	100	0.195	25	0.00	0.0063	0.0063	—	—
9 142301	-10	1501	12	100	0.12	15	0.00	0.0000	0.0000	—	—
10 142302	Bunk	—	0	100	—	15	0.00	0.0000	0.0000	—	—
11 —	—	—	—	—	—	—	—	—	—	—	—
12 Recovery	142300	1511	11	100	0.11	22	—	—	—	—	—
13 —	—	—	—	—	—	—	—	—	—	—	—
14 —	—	—	—	—	—	—	—	—	—	—	—
15 —	—	—	—	—	—	—	—	—	—	—	—
Blank Average:	—	—	—	—	—	—	—	—	—	—	—
Indication Limits:	—	—	—	—	—	—	—	—	—	—	—
					0.04	5	2 (1000) 4,000	—	—	—	—

Reviewed By: *[Signature]*

Date: 10/30/74

Reviewed By: *[Signature]*

Date: 10/30/74

B 11/10/84 (1)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Clayton
Environmental
Consultants

Client: C. H. M.
Batch No.: B1026C2D22
Project No.: 31204-00

Microscope: P. 21
Field Area (mm²/field): 0.0018541
Microscopist: Clayton Consultants

Method: open 1026-58 Date: Friday Filter Size: 5 mm dia. Please

Type of Report: 1B

Sample Number	Volume (ml)	Filter (mm)	Counted Fiber Count (number)	B		C		
				Conc. (ppm)	Fiber Density	(Optimum Fiber Concentration (ppm))	Fiber Concentration (ppm)	
1 1124102	0.001-10-25-1A	1158	44	100	0.04	5	2000	0.002
2								
3 Recent	11124102	44.8	41/2	100	0.045	6	2000	0.002
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
Blank Average:	..	..	5	100	..	..	..	..
Detection limits:	..	..	..	0.04	5	(2,000) 4,000mm	..	..

Date: 10/30/90
Form PCM 008 (2/26/90)

11/12/90
11/16/1990

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chart: 011M
Batch No.: 100102602022
Project No.: 11204 00

Microscope: E81

Field Area (mm^2): 0.007854

Log In Date: 10/12/1990

Date Analyzed: 10/12/1990

Microscoper: Sanjay Chaudhury

Method: NIOSH 1100 Date: 10/12/90

Filter Size: 25 mm x 37 mm

Effective Filter Area: 0.05 mm^2 0.05 mm^2

Type of Report: II

Sample Number	Sample Identification	Air Volume (ml)	Fiber Counted (Total)	Fields Counted (Fields)	Blank Corrected Fiber Count (Thousands)	Fiber Density (Thousands)	(Optimum) Fiber Concentration (Thousands)	Fiber Concentration (Thousands)	(Optimum) Upper 95% Confidence Limit (Thousands)
1 1124103	PCM 10-25-2	1173	3 1/2	100	0.035	2.5	42000	50002	—
2 1124104	-3	1172	1	100	0.01	2.5	42000	50002	—
3 1124105	-4	1022	0	100	0.00	2.5	42000	50002	—
4 1124106	-5	1080	1/2	100	0.005	2.5	42000	50002	—
5 1124107	-6	1071	1	100	0.01	2.5	42000	50002	—
6 1124108	BLANK	--	0	100	--	2.5	42000	--	—
7									
8									
9									
10									
11									
12									
13									
14									
15									
Blank Average:		..	..	0	100	..	..	..	..
Detection Limit:		..	..	..	..	0.04	5	2,000 to 4,000	..

QC Reviewed By:

Sanjay Chaudhury Date: 10/30/90
Form PCM 008 (2/26/90)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

ABD 002 0589

Chart: C.H.MMicroscope: 1' 31'Batch No.: BLC 24020114Project No.: 21204 00Method: NIOSH 2400Rate: AFilter Size: 25 mm dia. 3138Microscope: 1' 31'Log In Date: 11/13/14
Date Analyzed: 11/13/14Microscope: Sanger SigmaEffective Filter Area: 36 mm² 85 mm²Type of Report: IR

Sample Number	Sample Name	All Fibers (mm)	Fibers Counted (mm)	Blank Filter Concentration (fibers/mm ²)	Filter Density (fibers/mm ²)	(Optimum Fiber Concentration (fibers/mm ²))	Fiber Concentration (fibers/mm ²)	Estimated Upper 95% Confidence Limit (fibers/mm ²)	Estimated Lower 95% Confidence Limit (fibers/mm ²)
1 142616	CHM-10-26-1	552	2	100	0.02	25	22000	20000	-
2 142617		7	2	518	0	100	0.00	15	-
3 142618		-3	52	1	100	0.01	15	20000	14000
4 142619	Blank	Blank	0	100	--	--	25	20000	14000
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
Blank Average:		0	100						
Detected Lenses:			0.04	5	2,000 ¹⁴				

(PC) Reviewed by: CGDate: 10/31/10
Form PCM 008 (2/26/90)

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chart:

Batch No.: 111111

Project No.: 112233445566

X Date: 1926.58

Method: DILUTION THICKNESS Rate: 1000

Filter Size:

25 mm² 31.4 mm²

Microscope:

Long In Date: 10/13/1990

Date Analyzed: 10/13/1990

Microscope: *Leitz Labophot*Effective Fiber Area (mm²): 31.4 mm²

Type of Report: IR

Sample	Date	No.	Field	Fiber Count	Blank	Corrected Fiber Count (Phase)	Fiber Density (Phase)	(Optimum Fiber Concentration Phase)	Fiber Concentration (Phase)	(Optimum Upper 95% Concentration Phase)
11127CS	10/13/90	1	100	0.111	10	0.111	10	0.111	0.111	0.111
11127CC		2	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C7		3	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C8		4	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C9		5	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C0		6	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C1		7	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C2		8	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C3		9	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C4		10	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C5		11	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C6		12	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C7		13	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C8		14	100	0.111	10	0.111	10	0.111	0.111	0.111
11127C9		15	100	0.111	10	0.111	10	0.111	0.111	0.111
Blanks Average		..	100	0.04	5	2 (100%)	4,000	..	..	..
Detection Limit		..	100	0.04	5	2 (100%)	4,000	..	..	..

(U) Reviewed by: *[Signature]* Date: 10/13/1990

11/8/94

ABD 002 0591

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

Chart: C 11 M
 Batch No.: 11103162085
 Project No.: 212001 00
 * ORM 1926-58
 Method: NICSI 7400 Rate: (A) 0

Microscope: S. S. I.
 Field Area (mm²/field): 0.001854
 Filter Size: (25 mm²) 37 mm²

Log In Date:

Date Analyzed

Microscopic: Sliding chamber
(negative)Effective Filter Area: 0.05 mm² 0.055 mm²

MDE 000406

Type of Report: II

Sample Number	Sample Identification	CL Air Volume (Liter)	Fibers Counted (Liter)	Fields Counted (Field)	Blank Corrected Fiber Count (Microfiber)	Fiber Density (Microfiber/mm ²)	(Optimum) Fiber Concentration (Microfiber)	Fiber Concentration (Microfiber)	(Optimum) Upper 95% Confidence Limit (Microfiber)
1 1112851	ORM 1030-1	1004	13	100	0.13	17	64000	0.00063	
2 1112852	-2	1002	2	100	0.02	<5	12000	<0.0007	
3 1112853	-3	966	1	100	0.01	<5	12000	<0.0008	
4 1112854	-11	950	3	100	0.03	<5	12000	<0.0007	
5 1112855	-5	950	4	100	0.04	5	20000	0.0008	
6 1112856	-6	9118	2	100	0.02	<5	12000	<0.0002	
7 1112857	Blank	-	-	100	-	<5	12000	--	
8									
9 Percentile	1112851	1001	14	100	0.14	18	6900	0.00068	
10									
11									
12									
13									
14									
15									
Blank Average:									
Detection Limits:									
0.04 5 2,000 ¹⁴ 4,000 ¹⁴									

QC Reviewed By:

EJY

Date: 11/5/90
Form PCM 008 (2/26/90)

11/3/1990

11-8776

WORKSHEET FOR FIBER COUNT RESULTS BY PHASE CONTRAST MICROSCOPY (PCM)

ABD 002 0592

Chart: 0.11 m
 Batch No.: B110102097
 Project No.: _____

Microscope: B3L
 Log In Date: 11/11/90
 Date Analyzed: 11/11/90
Method: NIOSH 7400 Rate: AFiber Size: 25 μm 37 μm Microscopist: Sangey ChaudhariEffective Filter Area: 305 mm^2 865 mm^2 Type of Report: II

Sample Number	Sample Identification	<u>a</u> As Volume (ml)	Fibers Counted (#)	Fields Counted (#)	Blank Corrected Fiber Count (#/ field)	Fiber Density (fibers/ mm^2)	(Optional) Fiber Concentration (fibers/filter)	<u>c</u> Fiber Concentration (fibers/ ml)	(Optional) Upper 95% Confidence Limit (fibers/ ml)
1 <u>142941</u>	<u>0HM-1011-1</u>	<u>938</u>	<u>2</u>	<u>100</u>	<u>0.02</u>	<u>25</u>	<u>22000</u>	<u>40.002</u>	_____
2 <u>142942</u>	<u>-2</u>	<u>933</u>	<u>1</u>	<u>100</u>	<u>0.01</u>	<u>25</u>	<u>22000</u>	<u>40.002</u>	_____
3 <u>142943</u>	<u>-3</u>	<u>933</u>	<u>Y2</u>	<u>100</u>	<u>0.005</u>	<u>25</u>	<u>22000</u>	<u>40.002</u>	_____
4 <u>142944</u>	<u>-4</u>	<u>928</u>	<u>2</u>	<u>100</u>	<u>0.02</u>	<u>25</u>	<u>22000</u>	<u>40.002</u>	_____
5 <u>142945</u>	<u>-5</u>	<u>933</u>	<u>3</u>	<u>100</u>	<u>0.03</u>	<u>25</u>	<u>22000</u>	<u>40.002</u>	_____
6 <u>142946</u>	<u>-6</u>	<u>955</u>	<u>0</u>	<u>100</u>	<u>0.00</u>	<u>25</u>	<u>22000</u>	<u>40.002</u>	_____
7 <u>142947</u>	<u>-7</u>	<u>948</u>	<u>1</u>	<u>100</u>	<u>0.01</u>	<u>25</u>	<u>22000</u>	<u>40.002</u>	_____
8 <u>142948</u>	<u>-8</u>	<u>943</u>	<u>2</u>	<u>100</u>	<u>0.02</u>	<u>25</u>	<u>22000</u>	<u>40.002</u>	_____
9 <u>142949</u>	<u>-9</u>	<u>940</u>	<u>3</u>	<u>100</u>	<u>0.03</u>	<u>25</u>	<u>22000</u>	<u>40.002</u>	_____
10 <u>142950</u>	<u>-10</u>	<u>940</u>	<u>Y2</u>	<u>100</u>	<u>0.005</u>	<u>25</u>	<u>22000</u>	<u>40.002</u>	_____
11 <u>142951</u>	<u>BLANK</u>	<u>--</u>	<u>0</u>	<u>100</u>	<u>--</u>	<u>25</u>	<u>22000</u>	<u>--</u>	_____
12									
13 Recount:	<u>142941</u>	<u>938</u>	<u>3</u>	<u>100</u>	<u>0.03</u>	<u>25</u>	<u>22000</u>	<u>40.002</u>	_____
14									
15									
Blank Average:	..	..	0	100	..	..	..	..	..
Detection Limits:	..	..	..	..	0.04	5	2,000 fm 4,000 fm	..	..

(b) Reviewed By:

 Date: 11/18/90
 Form PCM 008 (2/26/90)

ATTACHMENT D2
TRANSMISSION ELECTRON MICROSCOPY ANALYSIS

ABD 002 0593

MDE 0004098

**Results of TEM Asbestos Analysis
for
OIIM**

**Clayton Project No. 31204.00
Kennesaw Lab Report No. E90I094**

Date Received: September 27, 1990
Grid Opening Size: 0.013 mm²
Filter Type: MCE, 25 mm

Date Completed: September 28, 1990
Microscope: Philips CM-12
Magnification: 15,000

Client #	Lab #	Volume (L)	Openings Examined	Fibers Counted			Limit of Detection (f/mm ²)	Total Asbestos	
				Chrys	Amph	Total Asbestos		(f/mm ²)	(f/cc)
OIIM-0911 -11	29679	1,848	40	0	0	0	1.9	<1.9	<0.00040
OIIM-0911 -Blank	29680	Blank	10	0	0	0	7.7	<7.7	---

Chrys: Chrysotile Asbestos

Amph: Amphibole Asbestos

f: fibers >5 µm length, >0.25 µm diameter, ≥3:1 length:width

Analytical Method: NIOSH 7402. May 15, 1989.

Lab Report No. E90I094
 Client Sample No. OHM-0911-11
 Lab Sample No. 29679

Page 3 of 4

Transmission Electron Microscopy
 Individual Structure Measurements

Grid Opening	Structure No.	Length (um)	Width (um)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No structures detected

ABD 002 0595

MDE 000410

Lab Report No. E90I094
Client Sample No. OHM-0911-Blank
Lab Sample No. 29680

Page 4 of 4

Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (um)	Width (um)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				

NSD - No structures detected

ABD 002 0596

MDE 0004101

11-9085

BILL D OCT 30 1990

Page 1 of 8

Results of TEM Asbestos Analysis
for
O H M

Clayton Project No. 31204.00
Kennesaw Lab Report No. E90J068

Date Received: October 23, 1990
Grid Opening Size: 0.013 mm²
Filter Type: MCE, 25 mm

Date Completed: October 24, 1990
Microscope: Philips CM-12
Magnification: 15,000

Client #	Lab #	Volume (L)	Openings Examined	Fibers Counted			Limit of Detection (f/mm ²)	Total Asbestos	
				Chrys	Amph	Total Asbestos		(f/mm ²)	(f/cc)
OHM-1017-1	30320	1,136	40	1	0	1	1.9	1.9	0.00065
OHM-1017-2	30321	950	40	0	0	0	1.9	<1.9	<0.00078
OHM-1017-3	30322	955	40	0	0	0	1.9	<1.9	<0.00078
OHM-1017-4	30323	953	40	0	0	0	1.9	<1.9	<0.00078
OHM-1017-5	30324	950	40	0	0	0	1.9	<1.9	<0.00078
Blank	30325	Blank	10	0	0	0	7.7	<7.7	---

Chrys: Chrysotile Asbestos

Amph: Amphibole Asbestos

f: fibers >5 µm length, >0.25 µm diameter, ≥3:1 length:width

Analytical Method: NIOSH 7402. May 15, 1989.

Clayton
Laboratory

Lab Report No. E90J068
Client Sample No. OHM-1017-1
Lab Sample No. 30320

Clayton
EXTERNA
CONSULTANTS

Page 3 of 8

Transmission Electron Microscopy
Individual Asbestos Structure Measurement

Grid Opening	Structure No.	Length (um)	Width (um)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	1	11	1.1	Fiber	Chrysotile
40	NSD				

NSD - No Structures Detected

ABD 002 0598

MDE 000410

Lab Report No. E90J068
 Client Sample No. OHM-1017-2
 Lab Sample No. 30321

Page 4 of 8

Transmission Electron Microscopy
Individual Asbestos Structure Measurement

Grid Opening	Structure No.	Length (um)	Width (um)	Structure Type	Identification
	1	NSD			
	2	NSD			
	3	NSD			
	4	NSD			
	5	NSD			
	6	NSD			
	7	NSD			
	8	NSD			
	9	NSD			
	10	NSD			
	11	NSD			
	12	NSD			
	13	NSD			
	14	NSD			
	15	NSD			
	16	NSD			
	17	NSD			
	18	NSD			
	19	NSD			
	20	NSD			
	21	NSD			
	22	NSD			
	23	NSD			
	24	NSD			
	25	NSD			
	26	NSD			
	27	NSD			
	28	NSD			
	29	NSD			
	30	NSD			
	31	NSD			
	32	NSD			
	33	NSD			
	34	NSD			
	35	NSD			
	36	NSD			
	37	NSD			
	38	NSD			
	39	NSD			
	40	NSD			

NSD - No Structures Detected

ABD 002 0599

MDE 000410

Lab Report No. E90J068
Client Sample No. OHM-1017-3
Lab Sample No. 30322

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Transmission Electron Microscopy
Individual Asbestos Structure Measurement

Grid Opening	Structure No.	Length (um)	Width (um)	Structure Type	Identification
✓	1	NSD			
8	2	NSD			
2	3	NSD			
11	4	NSD			
	5	NSD			
	6	NSD			
	7	NSD			
	8	NSD			
	9	NSD			
	10	NSD			
	11	NSD			
	12	NSD			
	13	NSD			
	14	NSD			
	15	NSD			
	16	NSD			
	17	NSD			
	18	NSD			
	19	NSD			
	20	NSD			
	21	NSD			
	22	NSD			
	23	NSD			
	24	NSD			
	25	NSD			
	26	NSD			
	27	NSD			
	28	NSD			
	29	NSD			
	30	NSD			
	31	NSD			
	32	NSD			
	33	NSD			
	34	NSD			
	35	NSD			
	36	NSD			
	37	NSD			
	38	NSD			
	39	NSD			
	40	NSD			

NSD - No Structures Detected

ABD 002 0600

MDE 0004105

Lab Report No. E90J068
Client Sample No. OHM-1017-4
Lab Sample No. 30323

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Transmission Electron Microscopy
Individual Asbestos Structure Measurement

Grid Opening	Structure No.	Length (um)	Width (um)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No Structures Detected

ABD 002 0601

MDE 0004106

Lab Report No. E90J068
 Client Sample No. OHM-1017-5
 Lab Sample No. 30324

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Transmission Electron Microscopy
 Individual Asbestos Structure Measurement

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No Structures Detected

ARD 002 0602

MDE 0004107

Lab Report No. E90J068
Client Sample No. BLANK
Lab Sample No. 30325

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Transmission Electron Microscopy
Individual Asbestos Structure Measurement

Grid Opening	Structure No.	Length (um)	Width (um)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				

NSD - No Structures Detected

ABD 002 0603

MDE 000410

**Results of TEM Asbestos Analysis
for
O H M**

**Clayton Project No. 31204.00
Kennesaw Lab Report No. E90J071**

Date Received: October 24, 1990
Grid Opening Size: 0.013 mm²*
Filter Type: MCE, 25 mm

Date Completed: October 29, 1990
Microscope: Philips CM-12
Magnification: 15,000

Client #	Lab #	Volume (L)	Openings Examined	Fibers Counted			Limit of Detection (f/mm²)	Total Asbestos	
				Chrys	Amph	Total Asbestos		(f/mm²)	(f/cc)
OHM-1019-90-8	30340**	6,732	40	0	0	0	2.1	<2.1	<0.00017
OHM-1020-1	30341	6,732	40	0	0	0	1.9	<1.9	<0.00011
OHM-1020-Blank	30342***	Blank	---	---	---	---	---	---	---
OHM-1018-4	30343	1,296	40	0	0	0	1.9	<1.9	<0.00057

Chrys: Chrysotile Asbestos

Amph: Amphibole Asbestos

f: fibers >5 µm length, >0.25 µm diameter, ≥3:1 length:width

Analytical Method: NIOSH 7402. May 15, 1989.

*Grid opening size 0.12 mm² for sample 30340.

**Sample overloaded; regular prep unable to be read. Ash redeposit authorized 10/25/90 by Jeff Kaplan; analyzed 10/29/90.

The sample was ashed and redeposited on 25 mm diameter 0.22 µm pore size MCE filter at 1:1 dilution.

***Sample unable to be prepped

ABD 002 0604

Lab Report No. E90J071
Client Sample No. OHM-1019-90-8
Lab Sample No. 30340

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Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No structures detected

ARD 002 0605

MDE 0004110

Lab Report No. E90J071
Client Sample No. OHM-1020-1
Lab Sample No. 30341

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Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No structures detected

ARD 002 0606

MDE 00041

**Results of TEM Asbestos Analysis
for
O H M**

**Clayton Project No. 31204.00
Kennesaw Lab Report No. E90J076**

Date Received: October 25, 1990
Grid Opening Size: 0.012 mm²
Filter Type: MCE, 25 mm

Date Completed: October 26, 1990
Microscope: Philips CM-12
Magnification: 15,000

Client #	Lab #	Volume (L)	Openings Examined	Fibers Counted			Limit of Detection (f/mm²)	Total Asbestos	
				Chrys	Amph	Total Asbestos		(f/mm²)	(f/cc)
OHM-10-20-5	30353	470	40	1	0	1	2.1	2.1	0.0017
OHM-10-19-5	30354	1,275	40	0	0	0	2.1	<2.1	<0.00063
OHM-10-19-6	30355	1,275	40	0	0	0	2.1	<2.1	<0.00063
OHM-10-19-Blank	30356	---	40	0	0	0	8.3	<8.3	---

Chrys: Chrysotile Asbestos

Amph: Amphibole Asbestos

f: fibers >5 µm length, >0.25 µm diameter, ≥3:1 length:width

Analytical Method: NIOSH 7402. May 15, 1989.

Lab Report No. E90J076
Client Sample No. OHM-10-20-5
Lab Sample No. 30353

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Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	1	25	0.7	Fiber	Chrysotile
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No structures detected

ARD 002 0608

MDE 00041

Lab Report No. E90J076
Client Sample No. OHM-10-19-5
Lab Sample No. 30354

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Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No structures detected

ABD 002 0609

MDE 0004114

Lab Report No. E90J076
Client Sample No. OHM-10-19-6
Lab Sample No. 30355

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Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No structures detected

ABD 002 0610

MDE 0004115

Lab Report No. E90J076
Client Sample No. OHM-10-19-Blank
Lab Sample No. 30356

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Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				

NSD - No structures detected

ARD 002 0611

MDE 0004116

U 1 11/26/94
**Results of TEM Asbestos Analysis
for
O H M**

**Clayton Project No. 31204.00
Kennesaw Lab Report No. E90J078**

Date Received: October 26, 1990
Grid Opening Size: 0.012 mm²
Filter Type: MCE, 25 mm

Date Completed: October 26, 1990
Microscope: Philips CM-12
Magnification: 15,000

Client #	Lab #	Volume (L)	Openings Examined	Fibers Counted			Limit of Detection (f/mm²)	Total Asbestos	
				Chrys	Amph	Total Asbestos		(f/mm²)	(f/cc)
OHM-10-20-3	30364	473	40	0	0	0	2.1	<2.1	<0.0017

Chrys: Chrysotile Asbestos

Amph: Amphibole Asbestos

f: fibers >5 µm length, >0.25 µm diameter, ≥3:1 length:width

Analytical Method: NIOSH 7402. May 15, 1989.

Lab Report No. E90J078
Client Sample No. OHM-10-20-3
Lab Sample No. 30364

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Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No structures detected

ARD 002 0613

MDE 0004118

Results of TEM Asbestos Analysis
for
O H M

Clayton Project No. 31204.00
Kennesaw Lab Report No. E90J082

Date Received: October 27, 1990
 Grid Opening Size: 0.012 mm²
 Filter Type: MCE, 25 mm

Date Completed: October 27, 1990
 Microscope: Philips CM-12
 Magnification: 15,000

Client #	Lab #	Volume (L)	Openings Examined	Fibers Counted			Limit of Detection (f/mm ²)	Total Asbestos	
				Chrys	Amph	Total Asbestos		(f/mm ²)	(f/cc)
OHM-10-24-8	30393	2,031	40	0	0	0	2.1	<2.1	<0.00039
OHM-10-24-9	30394	1,519	40	0	0	0	2.1	<2.1	<0.00053
OHM-10-24-10	30395	1,563	40	0	0	0	2.1	<2.1	<0.00053
OHM-10-24-Blank	30396	---	10	0	0	0	8.3	<8.3	---

Chrys: Chrysotile Asbestos

Amph: Amphibole Asbestos

f: fibers >5 µm length, >0.25 µm diameter, ≥3:1 length:width

Analytical Method: NIOSH 7402. May 15, 1989.

Lab Report No. E90J082
Client Sample No. OHM-10-24-8
Lab Sample No. 30393

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Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No structures detected

ABD 002 0615

MDE 0004120

Lab Report No. E90J082
Client Sample No. OHM-10-24-9
Lab Sample No. 30394

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Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No structures detected

ARD 002 0616

MDE 0004121

Lab Report No. E90J082
Client Sample No. OHM-10-24-10
Lab Sample No. 30395

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Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No structures detected

ABD 002 0617

MDE 0004127

Lab Report No. E90J082
Client Sample No. OHM-10-24-Blank
Lab Sample No. 30396

Page 6 of 6

Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				

NSD - No structures detected

ARD 002 0618

MDE 0004123

Lab Report No. E90J071
Client Sample No. OHM-1018-4
Lab Sample No. 30343

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Transmission Electron Microscopy
Individual Structure Measurements

Grid Opening	Structure No.	Length (μm)	Width (μm)	Structure Type	Identification
1	NSD				
2	NSD				
3	NSD				
4	NSD				
5	NSD				
6	NSD				
7	NSD				
8	NSD				
9	NSD				
10	NSD				
11	NSD				
12	NSD				
13	NSD				
14	NSD				
15	NSD				
16	NSD				
17	NSD				
18	NSD				
19	NSD				
20	NSD				
21	NSD				
22	NSD				
23	NSD				
24	NSD				
25	NSD				
26	NSD				
27	NSD				
28	NSD				
29	NSD				
30	NSD				
31	NSD				
32	NSD				
33	NSD				
34	NSD				
35	NSD				
36	NSD				
37	NSD				
38	NSD				
39	NSD				
40	NSD				

NSD - No structures detected

ARD 002 0619

MDE 0004124

ABD 002 0620]

MDE 0004125